

**This Page Is Inserted by IFW Operations
and is not a part of the Official Record**

BEST AVAILABLE IMAGES

**Defective images within this document are accurate representation of
The original documents submitted by the applicant.**

Defects in the images may include (but are not limited to):

- **BLACK BORDERS**
- **TEXT CUT OFF AT TOP, BOTTOM OR SIDES**
- **FADED TEXT**
- **ILLEGIBLE TEXT**
- **SKEWED/SLANTED IMAGES**
- **COLORED PHOTOS**
- **BLACK OR VERY BLACK AND WHITE DARK PHOTOS**
- **GRAY SCALE DOCUMENTS**

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

REPLACED BY DRAWING OF 1/4/02
TUBEROZEE

1 agggagagggc agtgaccatg aaggctgtgc tgcctgccc tttgatggca
51 ggcttggccc tgcagccagg cactgcccig ctgtgctact cctgcaaagc
101 ccaggtgagc aacgaggact gcttgcaggt ggagaactgc acccagctgg
151 gggagcagtg ctggaccgcz cgcatccgcz cagtggcct cctgaccgtc
201 atcagcaaag gctgcagctt gaactgcgtg gatgactcac aggactacta
251 cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca
301 gcggggccca tgccttcag ccggctgccc ccatccctgc gctgctccc
351 gcactcggcc tgcctgctcg gggaccggc cagctatagg ctctgggggg
401 ccccgctgca gccacactg ggtgtggtgc ccaggcctt tgtgccactc
451 ctacagaac ctggcccagt gggagcctgt cctggcttct gaggcacatc
501 ctaacgcaag ttgaccatg tatgtttgca cccctttcc ccnaaccctg
551 accttccat gggcctttc caggattccn accnggcaga tcagtttag
601 tganacanat ccgcttcag atggccctc caaccnctn tgttgnctn
651 tccatggccc agcatttcc accttaacc ctgtgtcag gcactttc
701 ccccaggaag ccttccctgc ccacccan tatgaattga gccaggttg
751 gtccgtggig tccccgcac ccagcagggg acaggcaatc aggaaggccc
801 agtaagggc gtagtgaggt ggactgagta gaactggagg acaagagtg
851 acgtgagtc ctgggagtt ccagagatgg ggcctggagg cctggaggaa
901 ggggccaggc ctacattg tggggtccc gaatggcagc ctgagcacag
951 cgtaggccct taataaacac ctgttgata agccaaataa aataataa

FIGURE 1A

MRALLALLMAGLALQPGTALLCYSCKAQVSNECLQV
EACTQLGEQCWTARIRAVGLLTVISKGCSLNCVDDS
QDYVVGKKNITCCDIDLNASGAHALQPAAAILALLPAL
GLLLWGPQQL

104-280-6247-66

FIGURE 1B

1 ATGAAGACAGTTTTTTTTATCCTGCTGGCCACCTACTTAGCCCTGCATCCAGGTGCTGCT
 TACTTCTGTCAAAAAAAAAATAGGACGACCGGTGGATGAATCGGGACGTAGGTCCACGACGA 60
 M K T V F F I L L A T Y L A L H P G A A
 61 CTGCAGTGTCTATTCATGCACAGCACAGATGAACAACAGAGACTGTCTGAATGTACAGAAC
 GACGTCACGATAAGTACGTGTCGTGTCTACTTGTGTCTCTGACAGACTTACATGTCTTG 120
 L Q C Y S C T A Q M N N R D C L N V Q N
 121 TGCAGCCTGGACCAGCACAGTTGCTTTACATCGCGCATCCGGGCCATTGGACTCGTGACA
 ACGTCGGACCTGGTGTGTCACGAAATGTAGCGCGTAGGCCCGGTAACCTGAGCACTGT 180
 C S L D Q H S C F T S R I R A I G L V T
 181 GTTATCAGTAAGGGCTGCAGCTCACAGTGTGAGGATGACTCGGAGAACTACTATTTGGGC
 CAATAGTCATTCCCGACGTGAGTGTCACTCTACTGAGCCTCTTGATGATAAACCCG 240
 V I S K G C S S Q C E D D S E N Y Y L G
 241 AAGAAGAACATCACGTGCTGCTACTCTGACCTGTGCAATGTCAACGGGGCCACACCCTG
 TTCTTCTGTAGTGCACGACGATGAGACTGGACACGTTACAGTTGCCCCGGGTGTGGGAC 300
 K K N I T C C Y S D L C N V N G A H T L
 301 AAGCCACCCACCACCTGGGGCTGCTGACCGTGTCTGCAGCCTGTTGCTGTGGGGCTCC
 TTCGGTGGGTGGTGGGACCCCGACGACTGGCACGAGACGTTCGGACAACGACACCCCGAGG 360
 K P P T T L G L L T V L C S L L L W G S
 361 AGCCGTCTGTAGGCTCTGGGAGAGCCTACCATAGCCCGATTGTGAAGGGATGAGCTGCAC
 TCGGCAGACATCCGAGACCCTCTCGGATGGTATCGGGCTAACACTTCCCTACTCGACGTG 420
 S R L
 421 TCCACCCACCCACACAGG
 AGGTGGGGTGGGGTGTGTCC 441

FIGURE 2

50753 224663

1 MKIFLPVTHA-NLWGVSRASS nSCA-2
1 MKAVLLLAHLMAGFAHOPGTA nPSCA
1 MKTVLFLHATYHALLH2GAA mPSCA
21 LMCFSCLNQKSNLYCEKPTI
21 LLCYSCKAQVSNEDCLQVEN
21 LQCYSCTAQMNNRDCLNVQN
41 CSDQDNVYCVTVSASXGIGNL
41 CTOLGZQCWTARI.RAVGLLT
41 CSLDQHSCTFSRILRAIGLVT
61 VTFGHSLSKTCS:PA:PIPEG
61 V- - - - I:SKGC:SLNCVDD:SQ
61 V- - - - I:SKGC:SSSQCE:DS:E
81 VNVGVAASHGITS:CCQSFLC:N:F
76 DYYVVGKK-N*LTCC:DTD:LC:N:A
76 NYYLGLKK-N*LTCC:YS:D:LC:N:V
101 SAADGGGLR:SVT:FGAG:EL
95 SGAHA:LOP:AAAT:ALL:PA:EG
95 NGA:ETL:K:P:PT:LLG:LL:V:V:CS
121 SLT:PA:LL:R:FG:P
115 LLL:WGP:GOL:-
115 LLL:WGS:SL:-

FIGURE 3

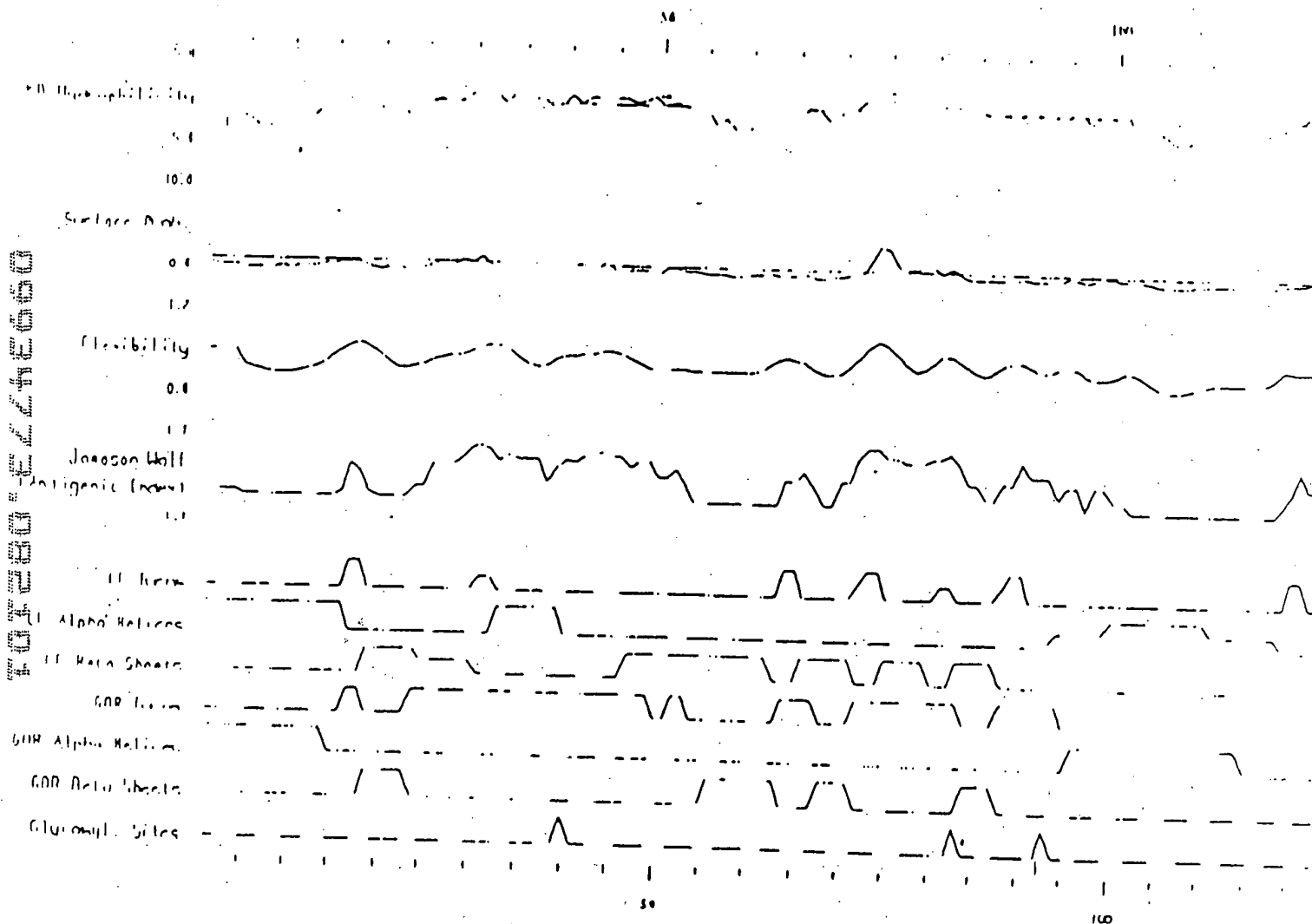


FIGURE 4

↑
Signal
reference

✓ GPI signal

8

Western ASCA
 Supposed to be 80% AB
 Normal tissue
 1hr exp

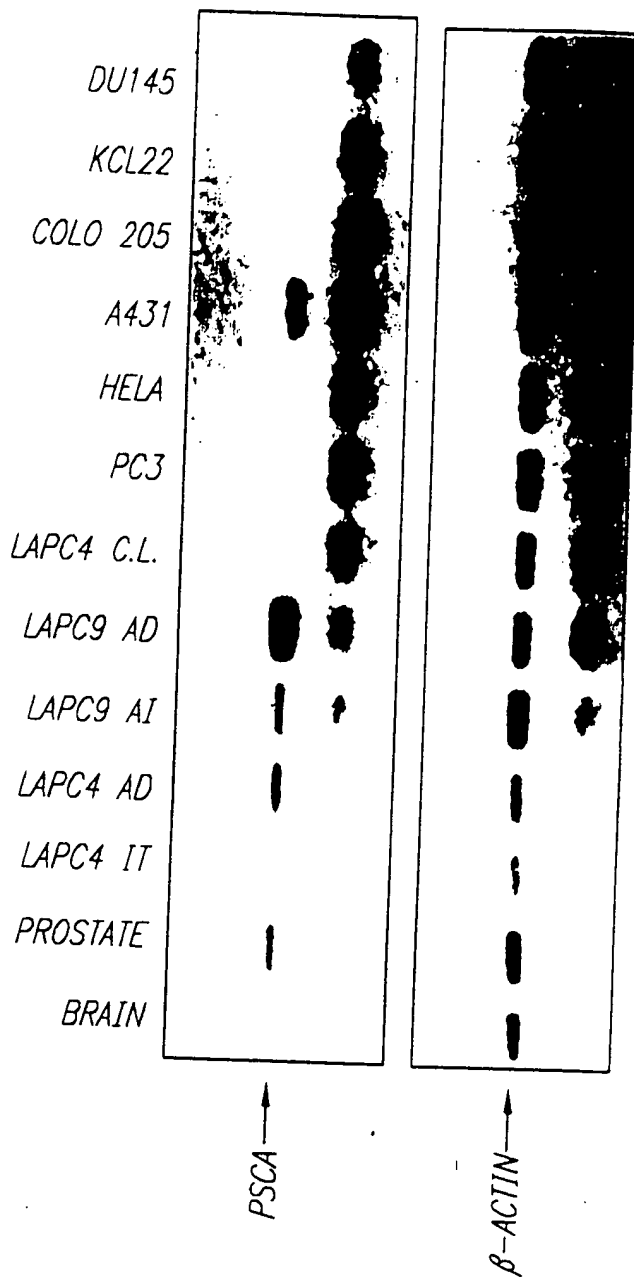
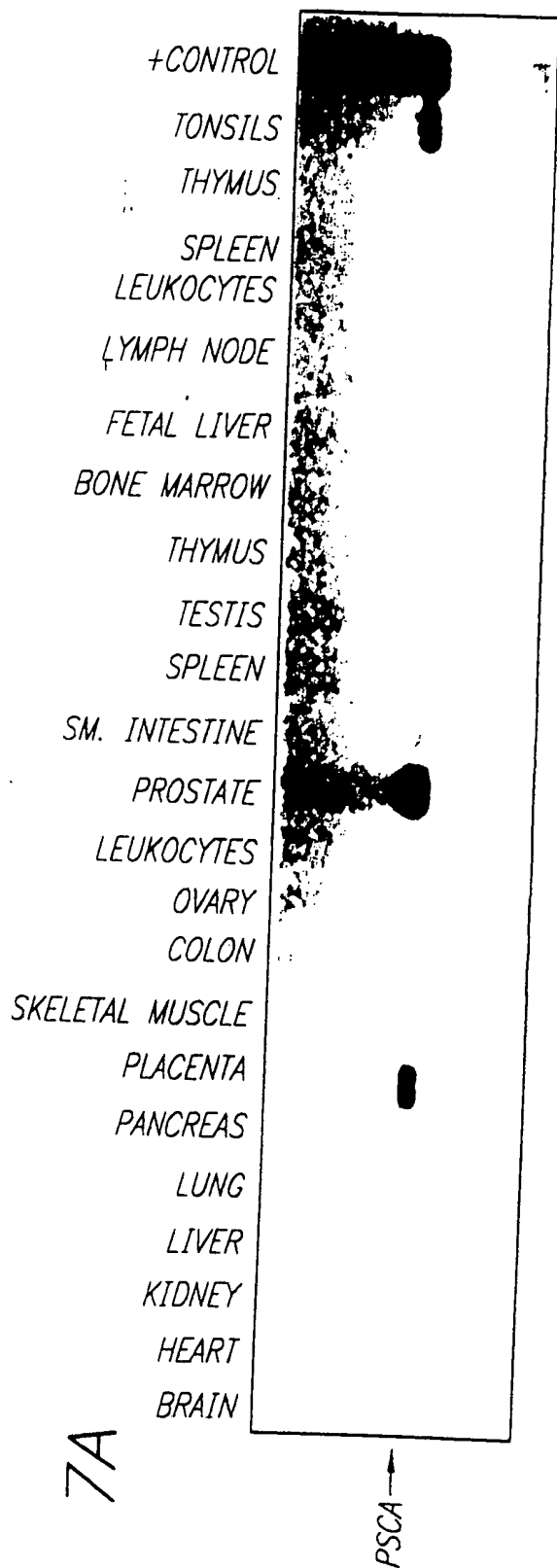
1G8
 1:100



prostate (Humer)
 prostate (Buck)
 prostate (GCK)
 Bladder (Humer)
 Bladder (GCK)
 Bladder (Rob)
 Kidney (M404)
 Kidney (W424)
 Testis
 Sm. Intest.

LA PC9

FIGURE 6

09034773 082404



Legend:  untranslated region of PSCA
 translated region of PSCA

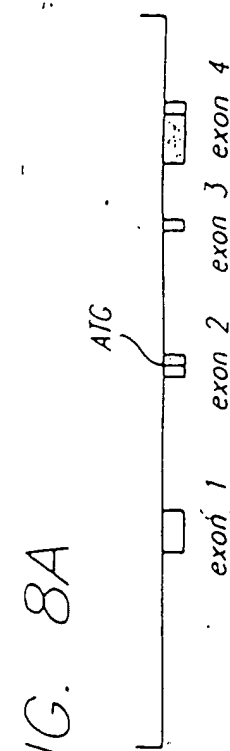


FIG. 8A

FIG. 8B

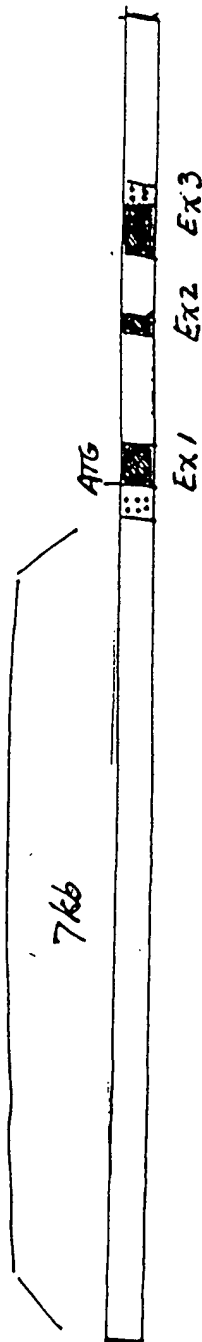
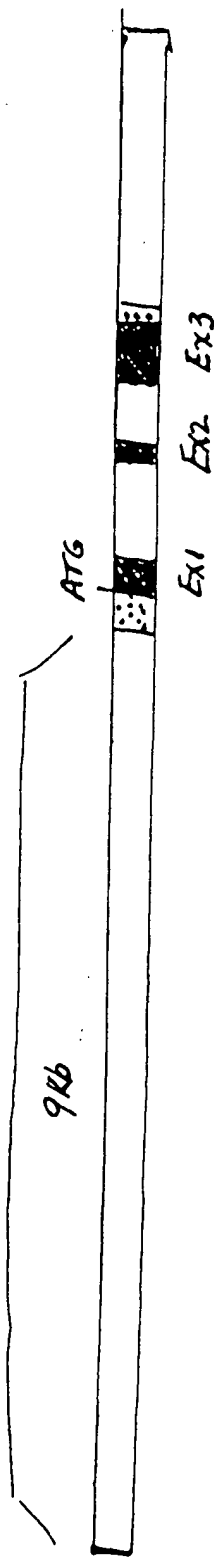


FIG. 8C



murine PSCA

FIGURE 8

human PSCA

PSCA / PSA Expression in Benign
Prostate vs. Prostate Cancer Xenograft

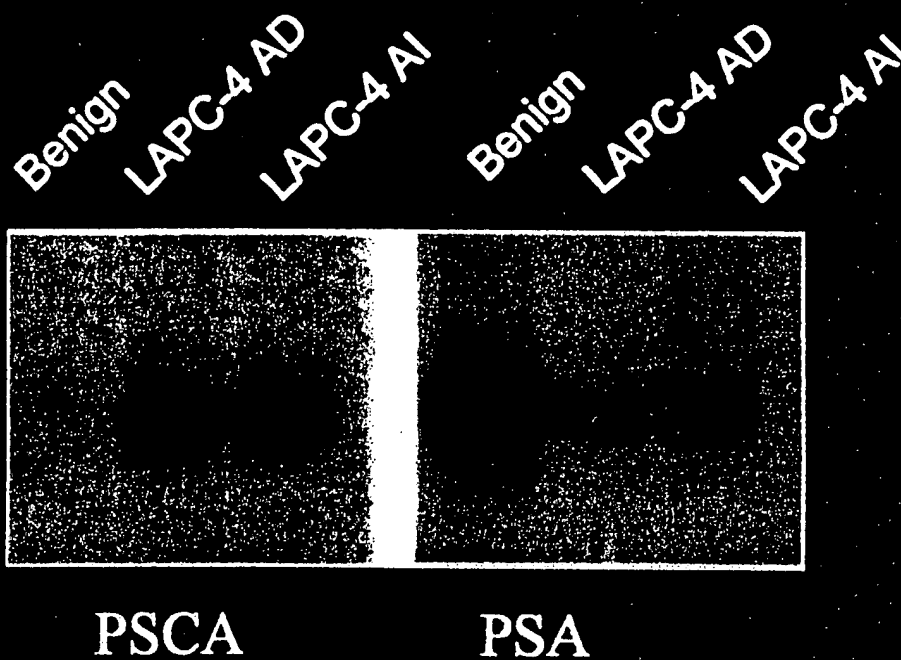


FIGURE 9A

PANCREAS

KIDNEY

SKELETAL MUSCLE

LIVER

LUNG

PLACENTA

BRAIN

HEART

PERIPHERAL LEUKOCYTES

COLON

SMALL INTESTINE

OVARY

TESTIS

PROSTATE

THYMUS

SPLEEN

~ 1kb

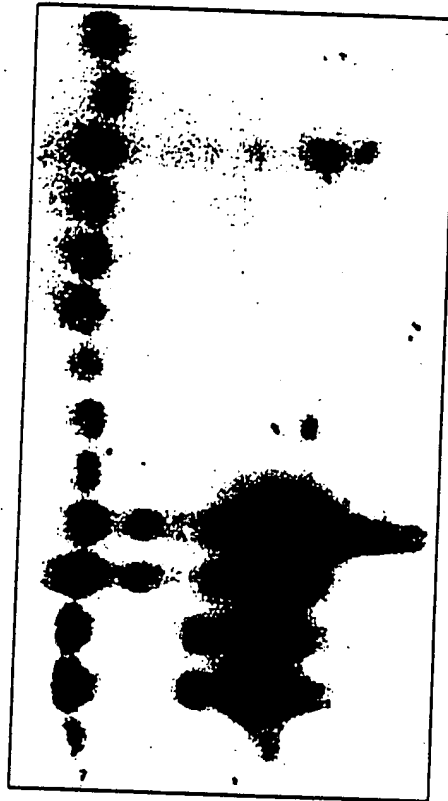
PSCA

FIG. 9B

707233 224600

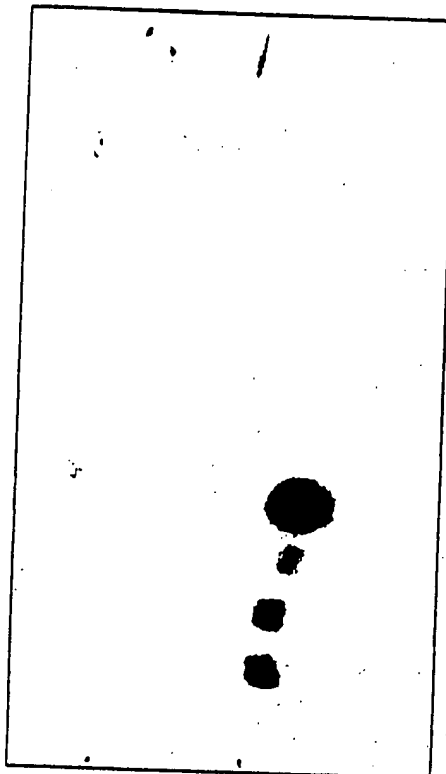
72 HRS

KCL22
COLO 205
A431
HELA
DU145
PC3
LNCAP
LAPC4 C.L.
LAPC3 AI
LAPC9
LAPC4 IT
LAPC4 AI
LAPC4 AD
BPH



4 HRS

KCL22
COLO 205
A431
HELA
DU145
PC3
LNCAP
LAPC4 C.L.
LAPC3 AI
LAPC9
LAPC4 IT
LAPC4 AI
LAPC4 AD
BPH



PSCA

FIG. 10-1

707250-224650

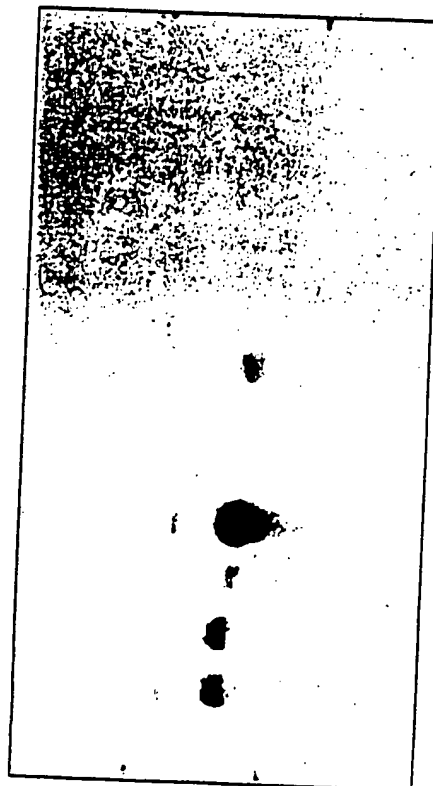
72 HRS

KCL22
COLO 205
A431
HELA
DU145
PC3
LNCAP
LAPC4 C.L.
LAPC3 AI
LAPC9
LAPC4 IT
LAPC4 AI
LAPC4 AD
BPH



4 HRS

KCL22
COLO 205
A431
HELA
DU145
PC3
LNCAP
LAPC4 C.L.
LAPC3 AI
LAPC9
LAPC4 IT
LAPC4 AI
LAPC4 AD
BPH



PSM

FIG. 10-2

6602242000

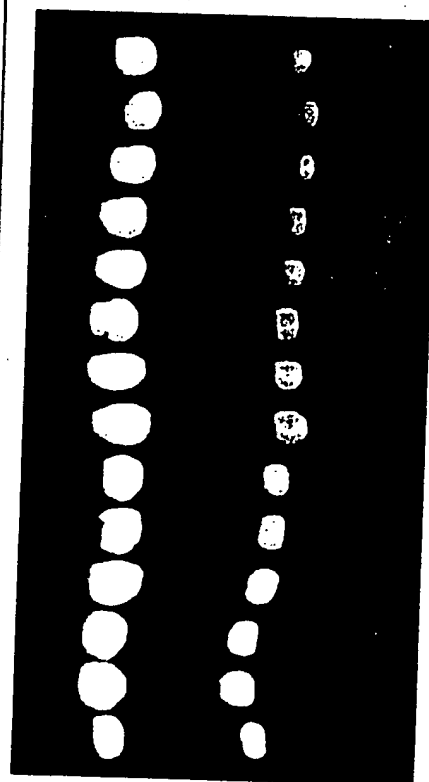
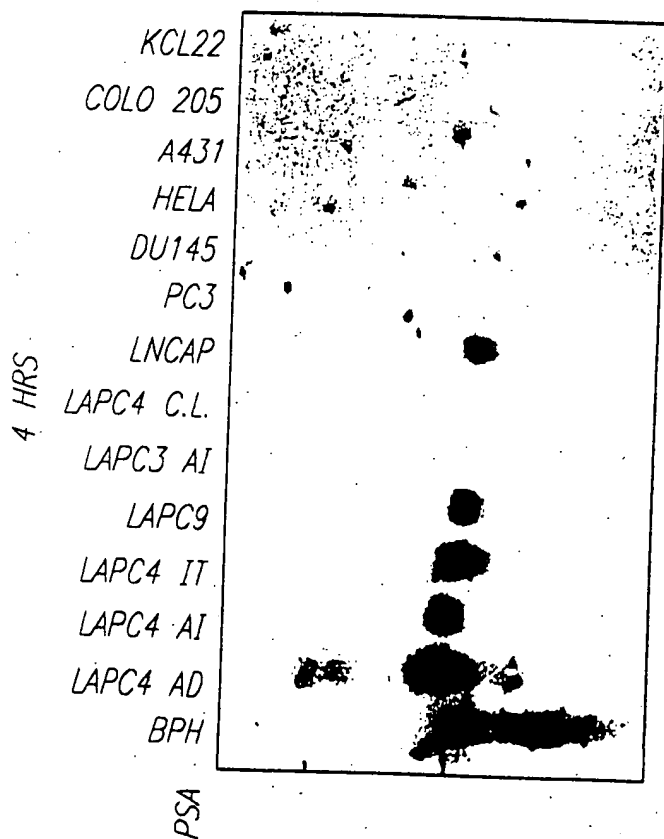
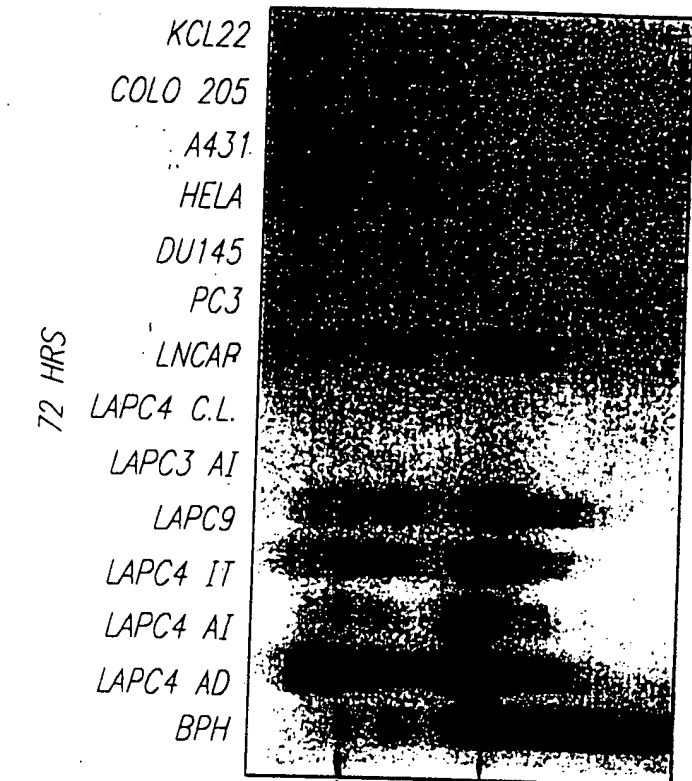


FIG. 10-3

[illegible]

FIG. 11B

00034773.082404
TOTEBB'E44E660

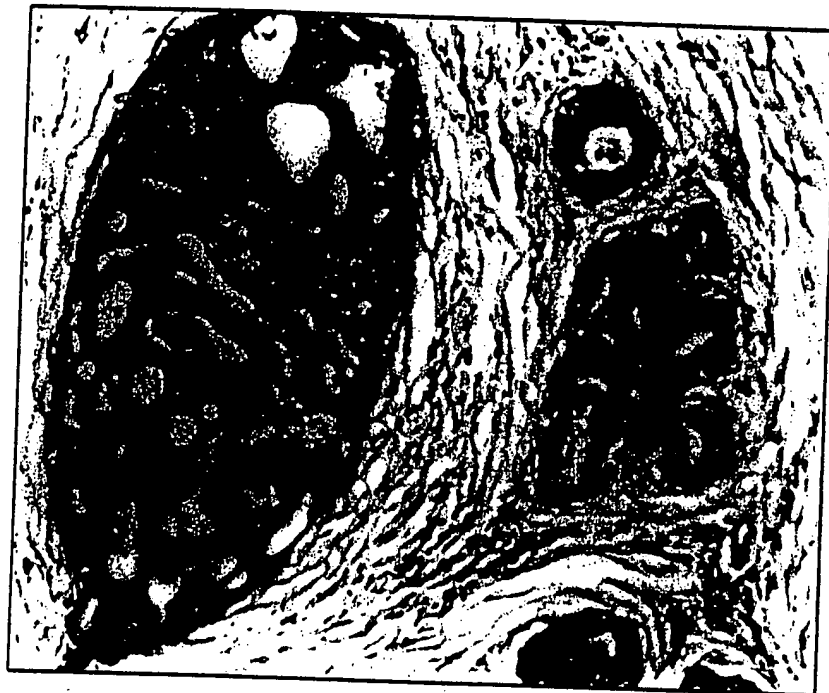
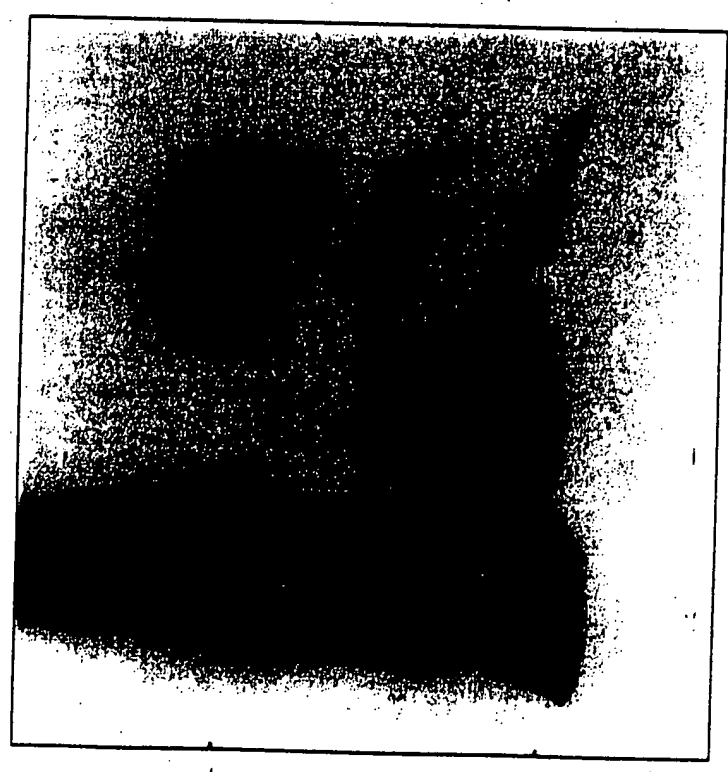


FIG. 11C

FIG. 12A

O GLYCOSIDASE
N GLYCOSIDASE F
CONTROL



SECRETED
CELL ASSOCIATED

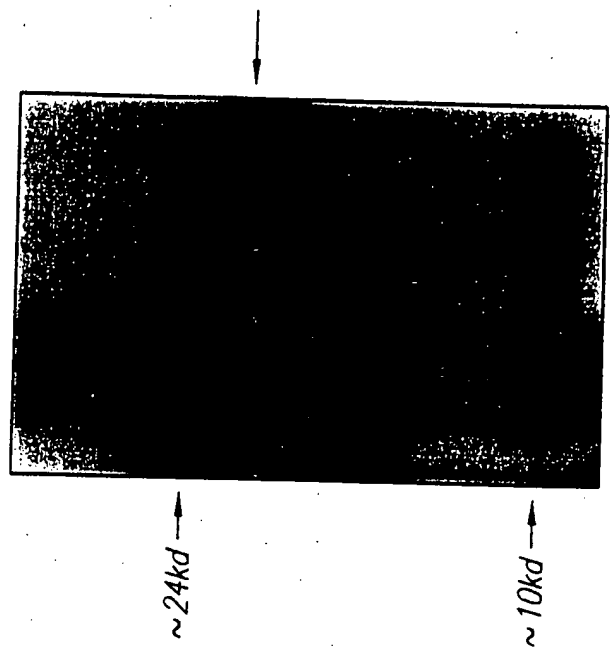


FIG. 12B

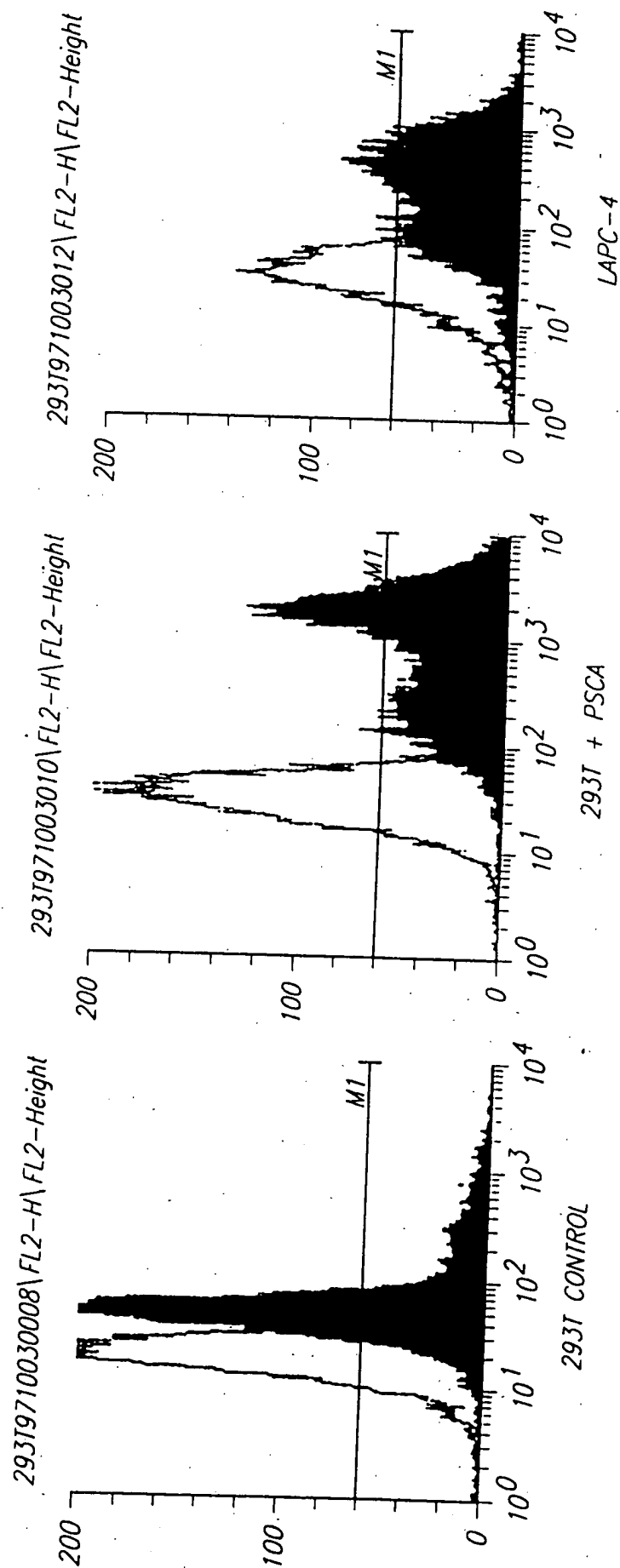


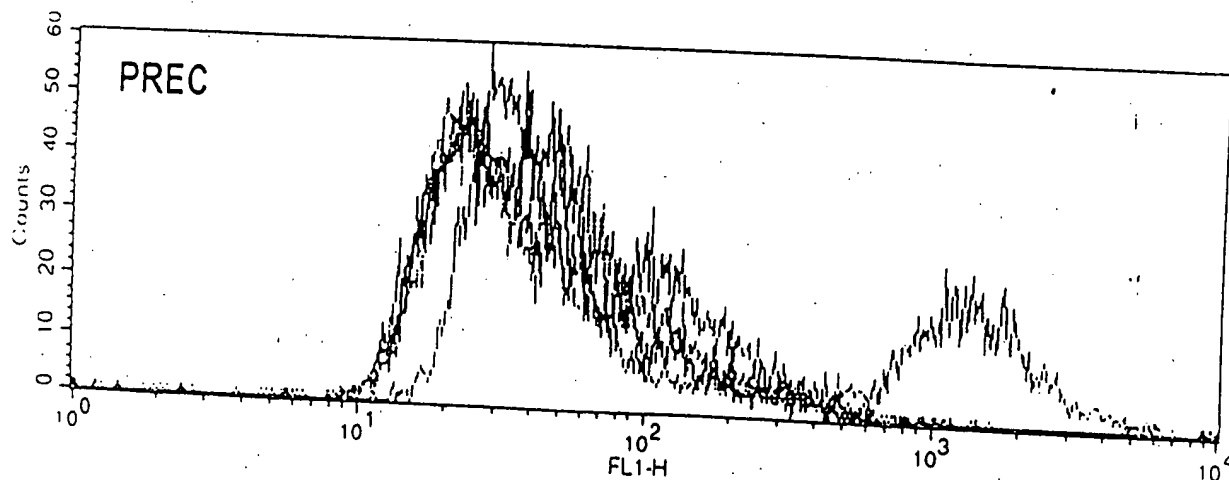
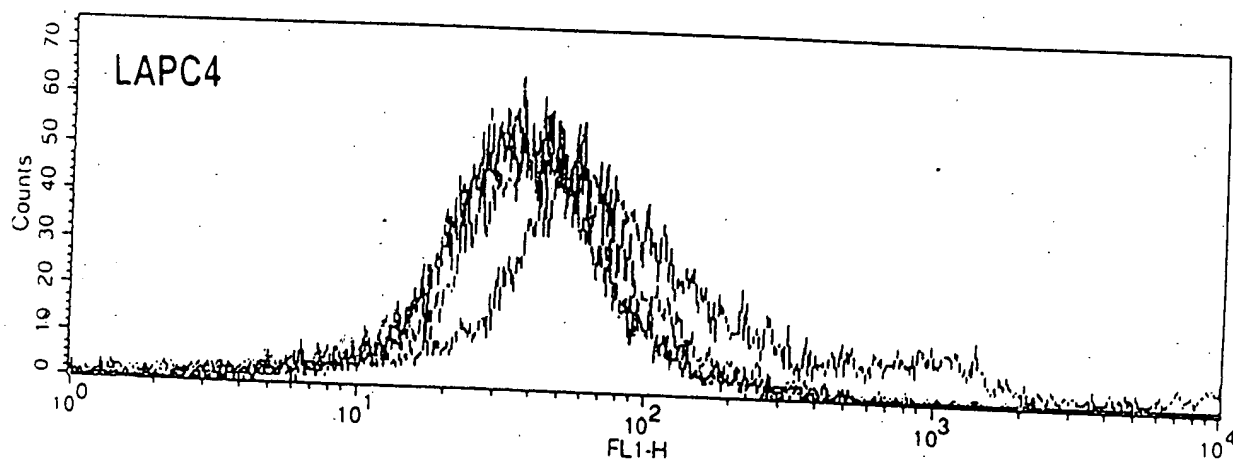
FIGURE 12C

PSCA Maps to Chromosome 8q24.2



Fluorescent
in Situ Hybridization
Analysis of PSCA

FIGURE 13



1

A**Epitope map**

mAb	Isotype	FL (18-98)	N (2-50)	M (46-109)	C (85-123)
1G8	IgG1 k	2.039	0.007	0.628	0.000
2H9	IgG1 k	1.318	0.863	0.032	0.021
3C5	IgG2a k	2.893	1.965	0.016	0.005
3E6	IgG3 k	0.328	0.024	0.069	0.370
4A10	IgG2a k	2.039	1.315	0.000	0.014
2A2	IgG2a k	1.366	0.733	0.010	0.003
3G3	IgG2a k	2.805	1.731	0.004	0.000

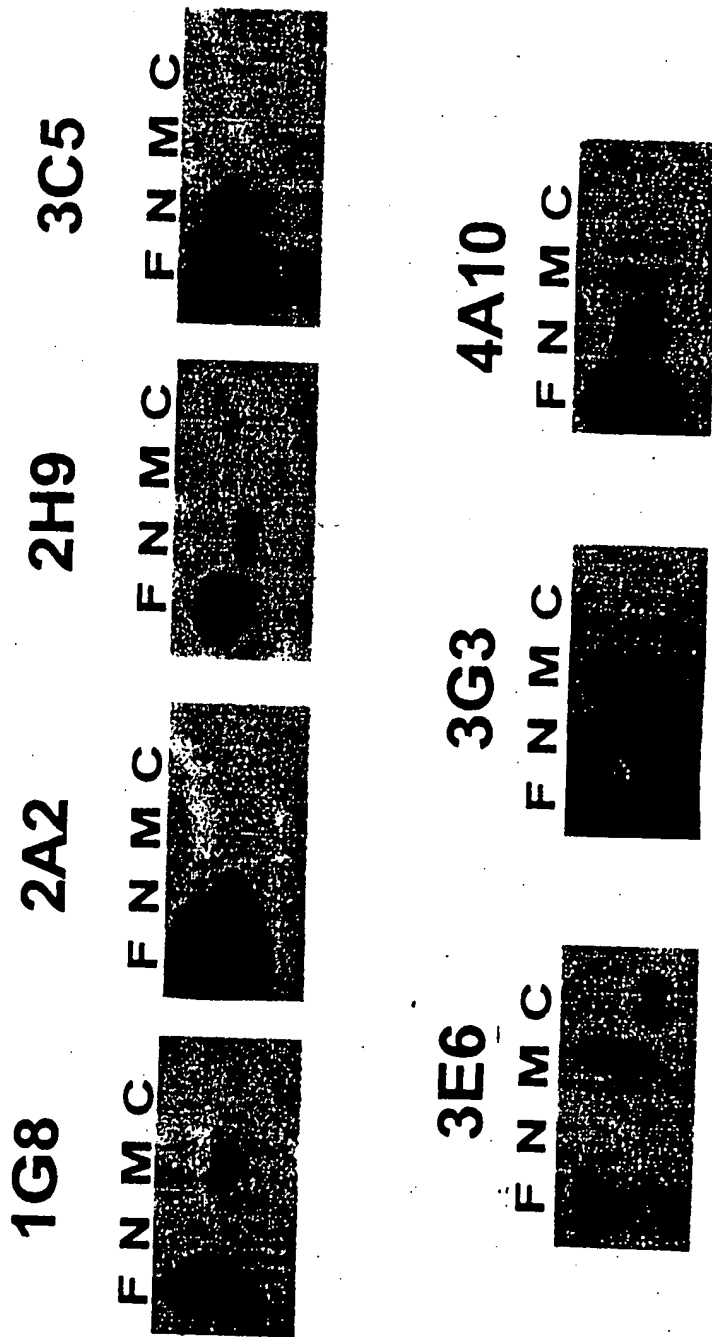
B

FIGURE 15

Prostate Stem Cell Antigen (PSCA) is a GPI-anchored Protein

1	I	F	P	V	D	L	A	A	L	S	R	A	A		hSCA-2
1	A	T	E	L	A	T	M	A	L	L	P	G	I	A	hPSCA
1	A	T	E	L	A	T	M	A	L	L	P	G	I	A	mPSCA
21	M	G	F	S	C	L	N	Q	S	N	L	V	C	L	P
21	L	L	G	C	C	K	A	Q	S	N	E	D	C	L	V
21	Q	C	C	S	C	T	K	Q	M	N	N	P	D	C	L
41	C	S													
41	C	S													
41	C	S													
61	V														
61	V														
61	V														
81	V														
76	D														
76	D														
101	S	A	D	G	G	A	R	A	S	T	L	L	A	L	L
95	S	A	D	G	G	A	R	A	S	T	L	L	A	L	L
95	S	A	D	G	G	A	R	A	S	T	L	L	A	L	L
121	S	A	D	G	G	A	R	A	S	T	L	L	A	L	L
115	S	A	D	G	G	A	R	A	S	T	L	L	A	L	L
115	S	A	D	G	G	A	R	A	S	T	L	L	A	L	L

(Reiter, R.E., et al., 1997. *PNAS*)

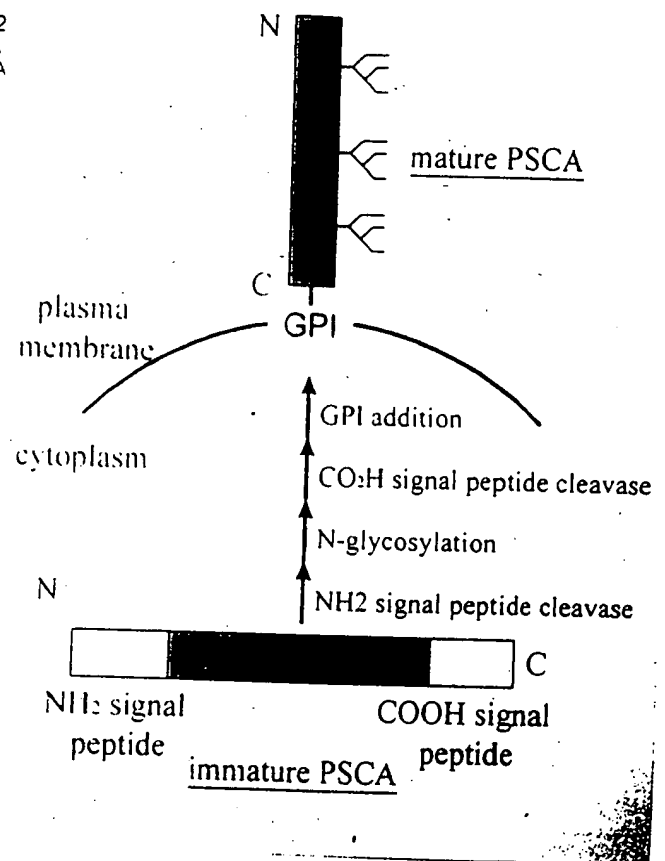
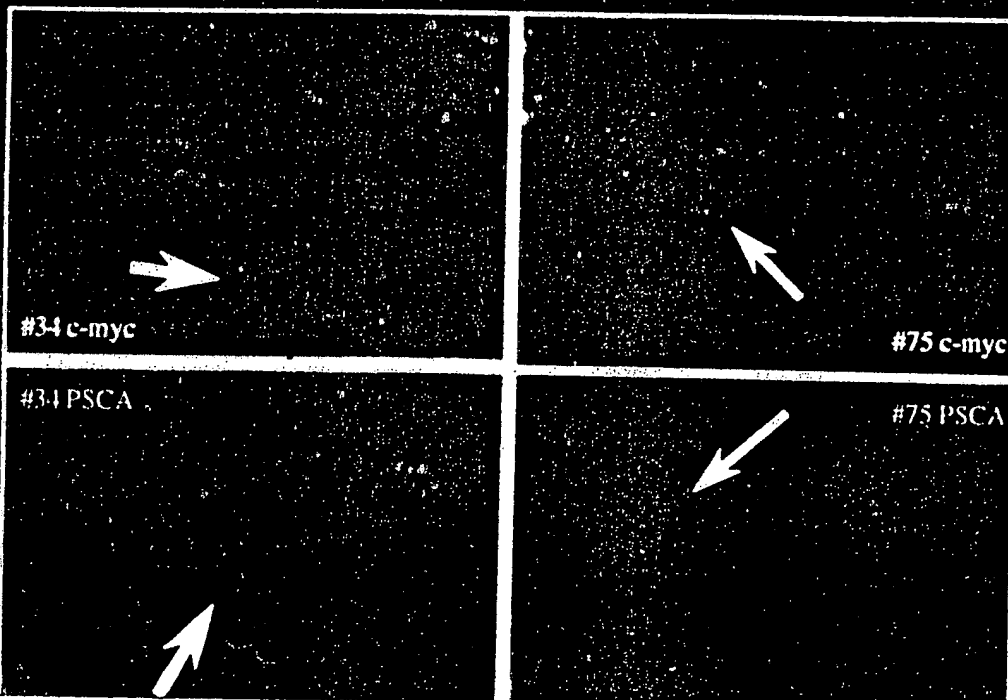


FIGURE 16

FISH Analysis of PSCA and c-myc in Prostate Cancer

Gain Chromosome 8

Amplification



R. Jenkins

FIGURE 17

FIGURE 18

[illegible]

FIGURE 19

000477 000000



FIGURE 20

PSCA Immunostaining of Primary Tumors

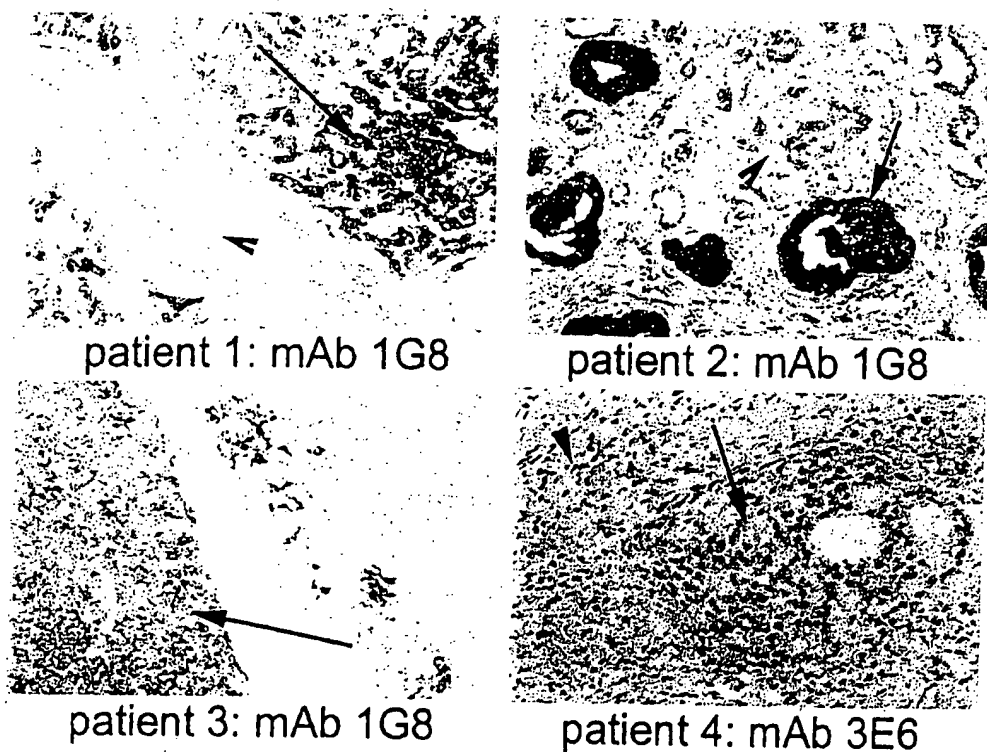


FIGURE 21

001280 644650



FIGURE 22

FIGURE 23

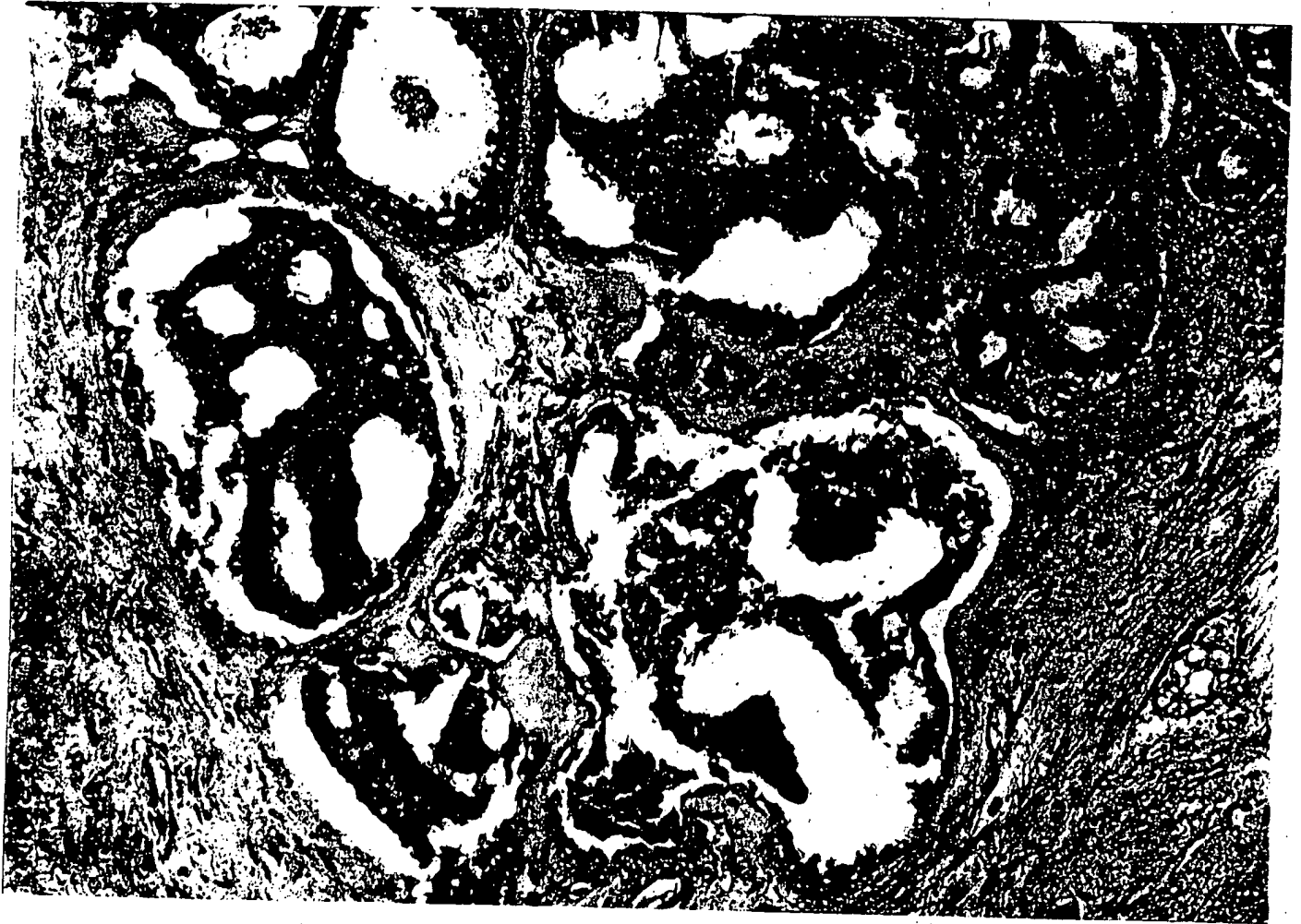


FIGURE 23

034280 22442550



FIGURE 24

1. 1000
 2. 1000
 3. 1000
 4. 1000
 5. 1000
 6. 1000
 7. 1000
 8. 1000
 9. 1000
 10. 1000
 11. 1000
 12. 1000
 13. 1000
 14. 1000
 15. 1000
 16. 1000
 17. 1000
 18. 1000
 19. 1000
 20. 1000
 21. 1000
 22. 1000
 23. 1000
 24. 1000
 25. 1000
 26. 1000
 27. 1000
 28. 1000
 29. 1000
 30. 1000
 31. 1000
 32. 1000
 33. 1000
 34. 1000
 35. 1000
 36. 1000
 37. 1000
 38. 1000
 39. 1000
 40. 1000
 41. 1000
 42. 1000
 43. 1000
 44. 1000
 45. 1000
 46. 1000
 47. 1000
 48. 1000
 49. 1000
 50. 1000
 51. 1000
 52. 1000
 53. 1000
 54. 1000
 55. 1000
 56. 1000
 57. 1000
 58. 1000
 59. 1000
 60. 1000
 61. 1000
 62. 1000
 63. 1000
 64. 1000
 65. 1000
 66. 1000
 67. 1000
 68. 1000
 69. 1000
 70. 1000
 71. 1000
 72. 1000
 73. 1000
 74. 1000
 75. 1000
 76. 1000
 77. 1000
 78. 1000
 79. 1000
 80. 1000
 81. 1000
 82. 1000
 83. 1000
 84. 1000
 85. 1000
 86. 1000
 87. 1000
 88. 1000
 89. 1000
 90. 1000
 91. 1000
 92. 1000
 93. 1000
 94. 1000
 95. 1000
 96. 1000
 97. 1000
 98. 1000
 99. 1000
 100. 1000

Thom PSCA
1/4/01

FIGURE 25

A high-contrast, black and white image showing a dark, textured surface. The surface is covered with numerous small, bright, circular spots or pits, which are more densely packed in some areas than others. The overall appearance is grainy and noisy, typical of a low-quality photocopy or a high-contrast scan of a physical document. The spots vary in size and brightness, creating a complex, almost abstract pattern against the dark background.

FIGURE 26

09472 09472 09472

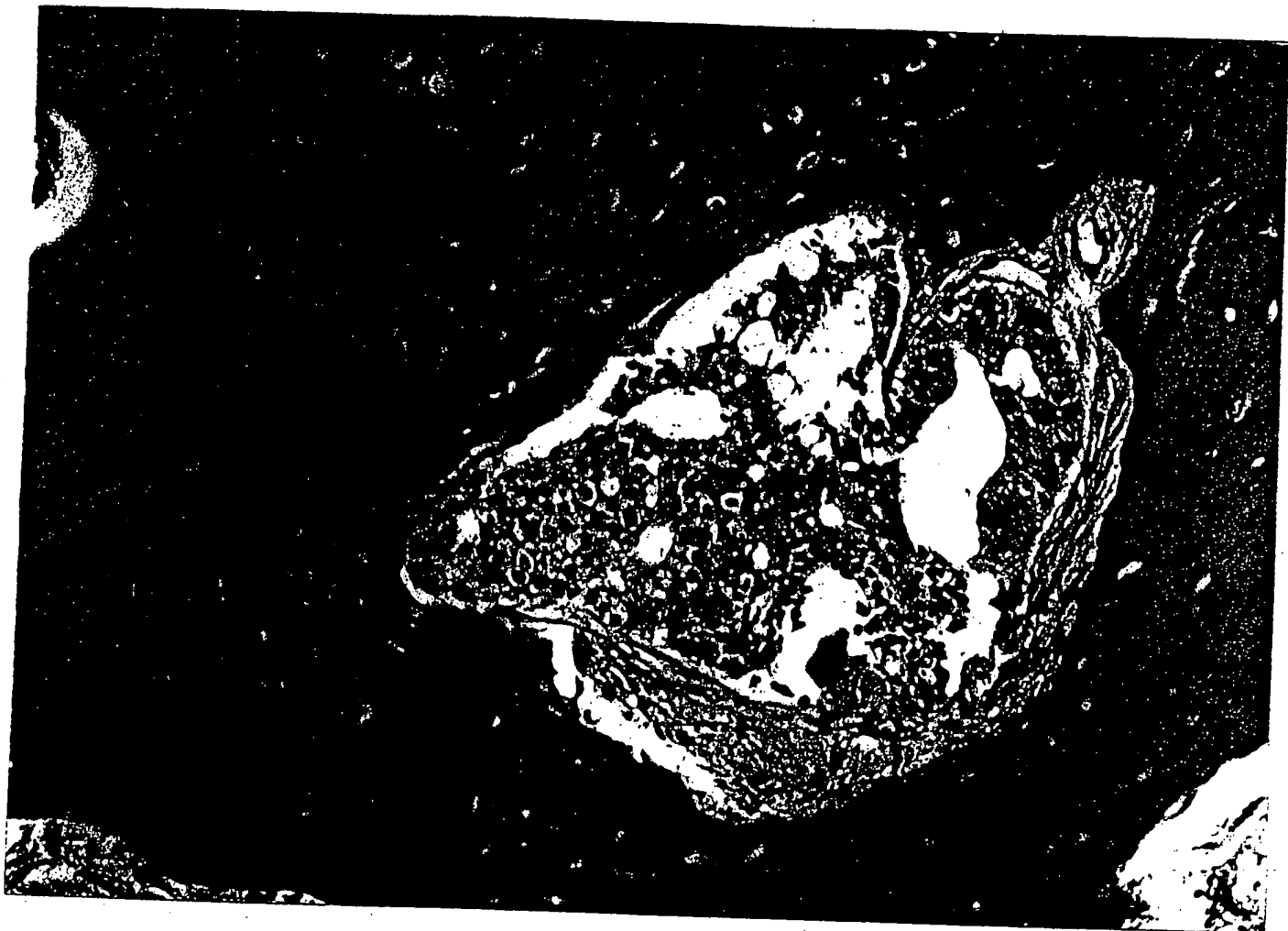
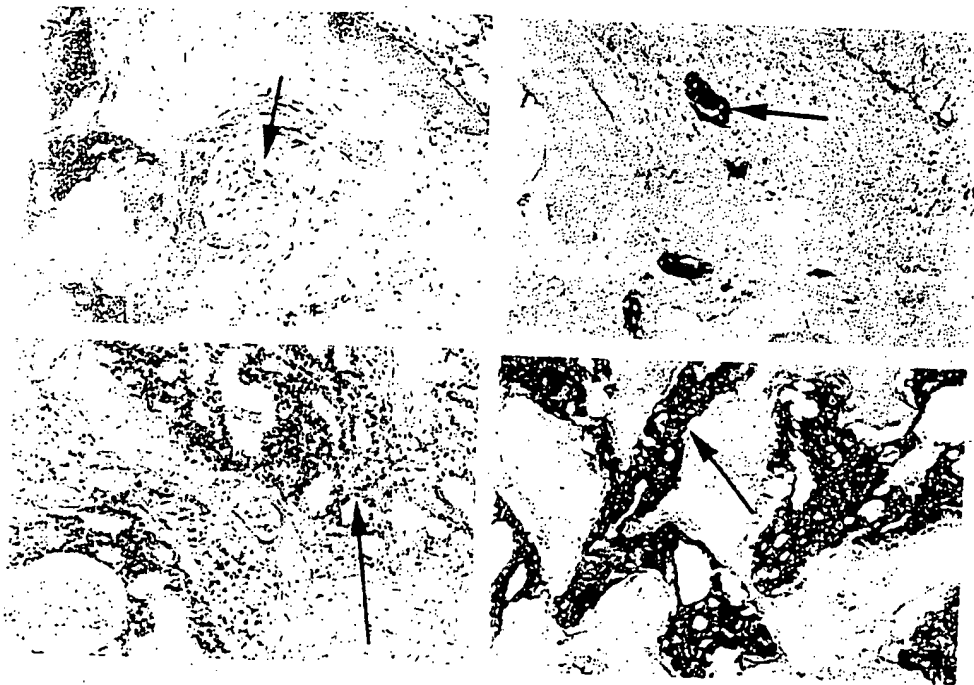


FIGURE 27

PSCA Immunostaining of Bony Metastases



Patient 5: H and E
and mAb 1G8

Patient 4: H and E
and mAb 3E6

FIGURE 28

This is a high-contrast, black and white image showing a dense, textured surface. The texture is highly irregular, with numerous small, light-colored specks and fibers scattered across a dark background. In the lower right quadrant, there is a dark, irregular shape that appears to be a shadow or a recessed area, possibly a hinge or a corner of a book cover. The overall appearance is that of a microscopic view of a material or a close-up of a rough, aged surface.

FIGURE 29

FOI 280 227650

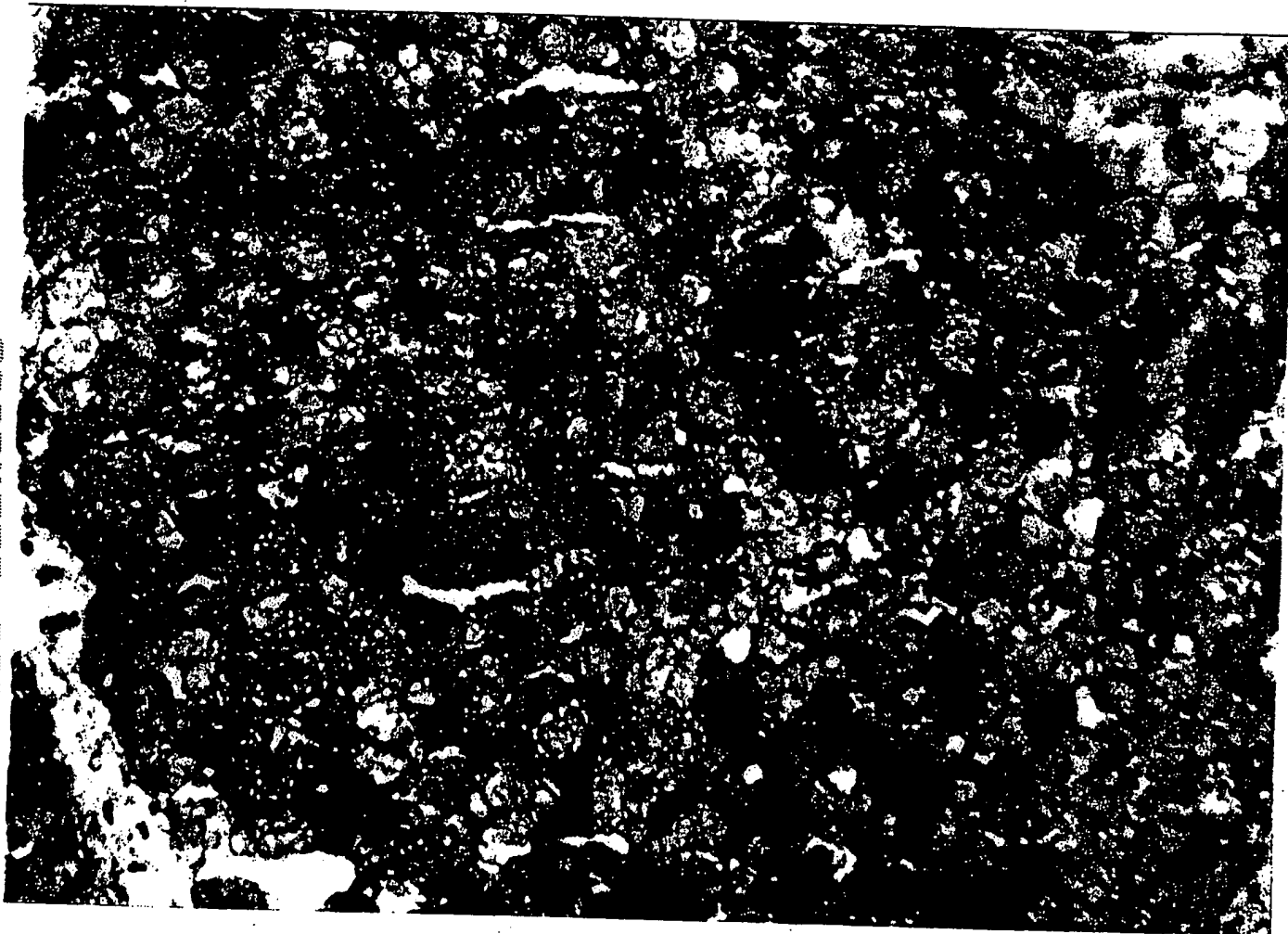


FIGURE 30

4.04.22.53 22.53.53

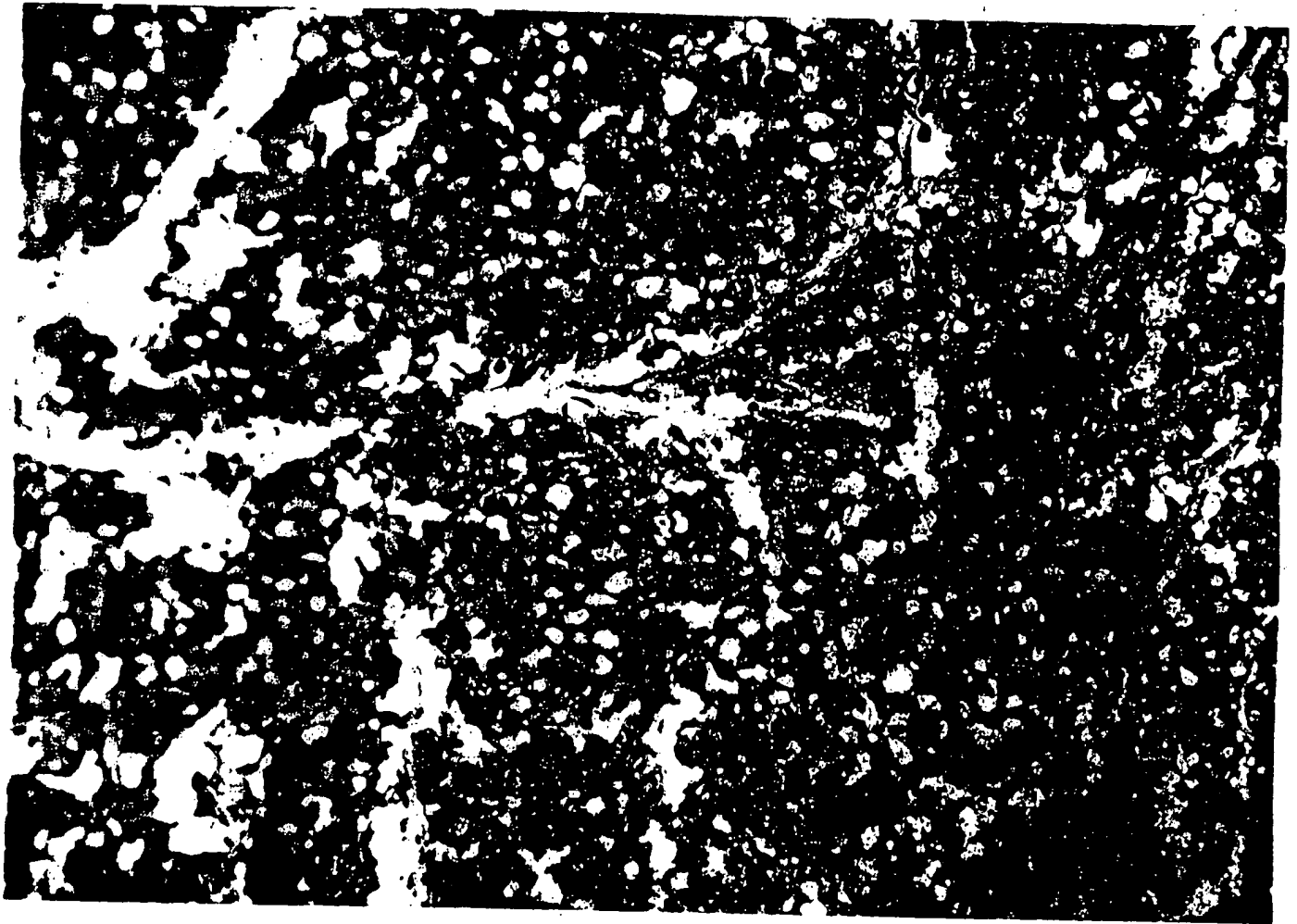


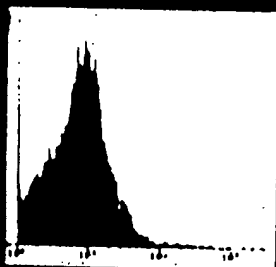
FIGURE 31

This is a high-contrast, black and white image of a textured surface, likely a book cover or a piece of fabric. The texture is dense and irregular, with a prominent vertical crease or fold line running down the center. The lighting is harsh, creating deep shadows and bright highlights that emphasize the rough, mottled appearance of the material. The overall effect is one of a heavily worn or aged object.

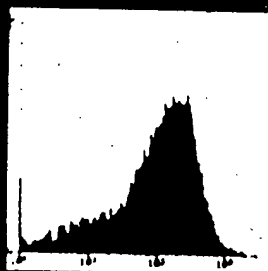
FIGURE 32

PSCA Expression in LAPC-9 Xenograft by FACS

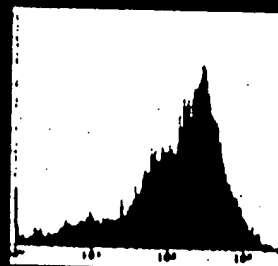
Secondary Antibody



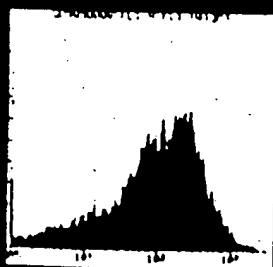
1G8



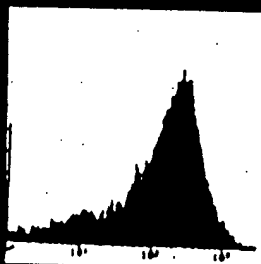
2H9



4A10



3C5



3E6

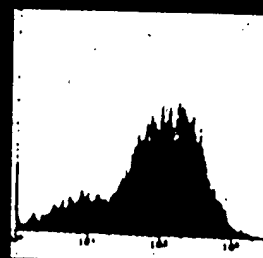


FIGURE 33

Immunofluorescent Staining of LNCaP-PSCA Cells

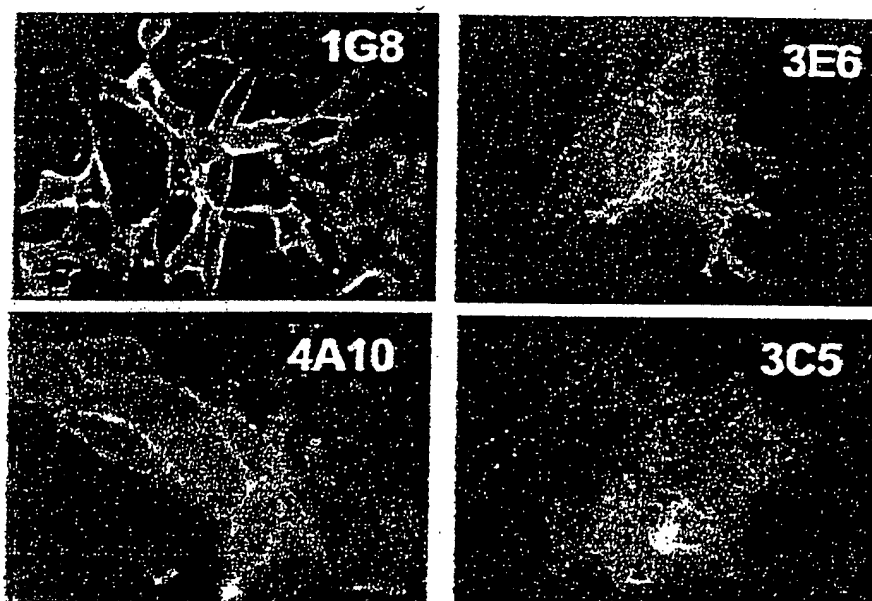


FIGURE 35

This image is a dark, grainy, black and white scan, likely of a document page. It is heavily obscured by noise and artifacts, appearing as a dense field of black with scattered white specks and faint, illegible marks. No text or clear figures are discernible.

FIGURE 36

107280 6224E660

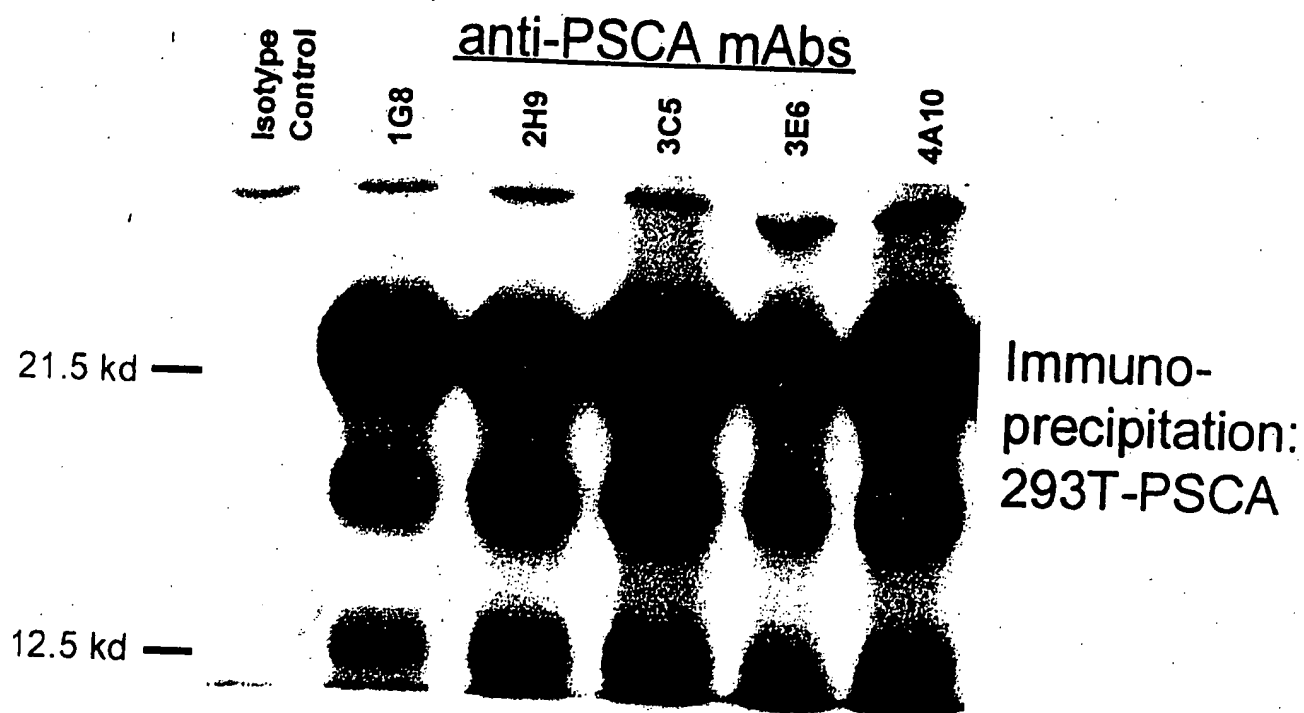


FIGURE 37

Immunohistochemical Staining of Normal Prostate

Normal: Isotype Control



Normal: PSCA mAb 3E6



Normal: PSCA mAb 1G8



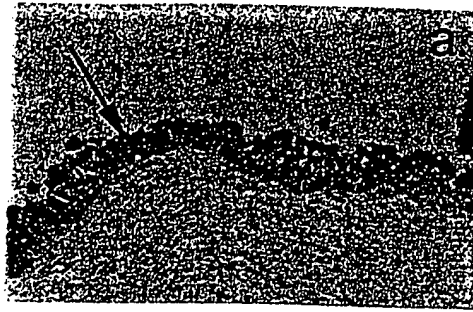
Atrophy: PSCA mAb 2H9



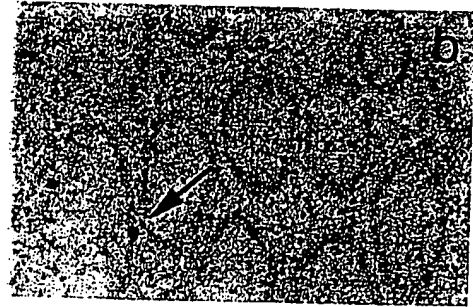
FIGURE 38

107280 2242660

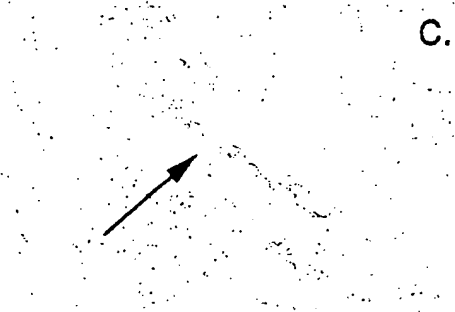
A.



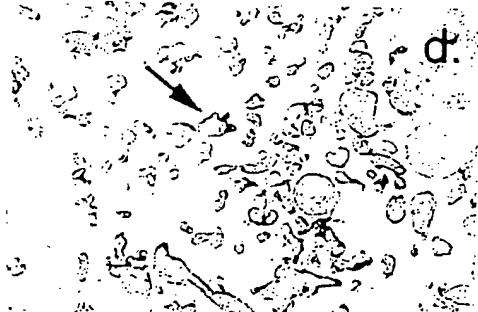
Bladder: 1G8



Colon: 1G8



Kidney: 3E6



Placenta: 3E6

B.

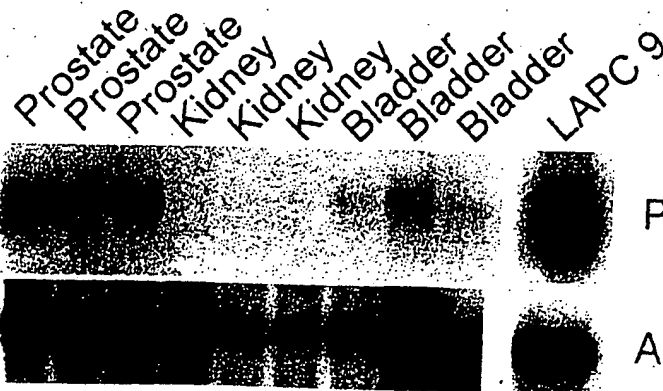
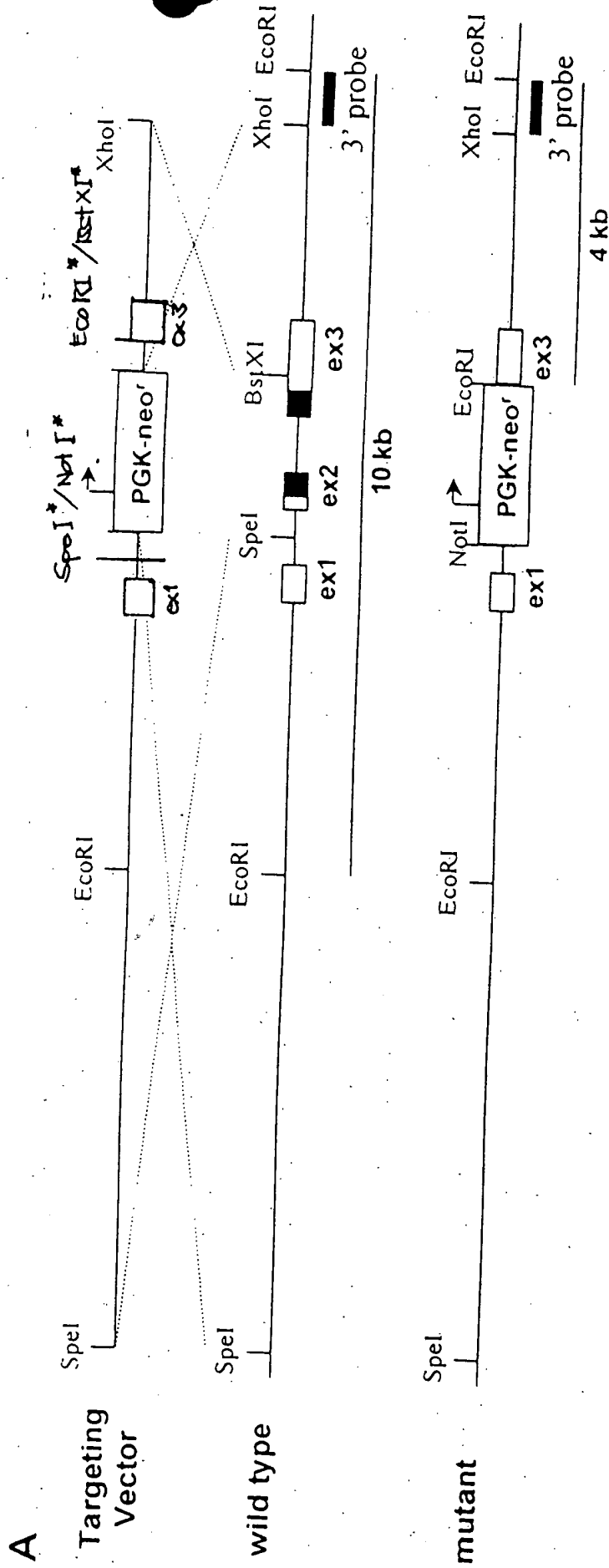


FIGURE 39

Targeting of Mouse PSCA Gene



- * ex1, 2, and 3 are the exons of PSCA gene.
- * Black boxes of ex2 and ex3 encode PSCA mature protein sequences.
- * ES genomic DNAs were digested with EcoRI, followed by Southern hybridization using 3' probe

B. Genomic Southern Analysis of ES Cells

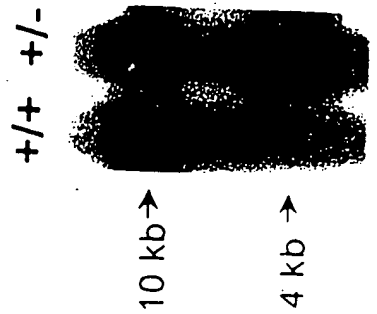
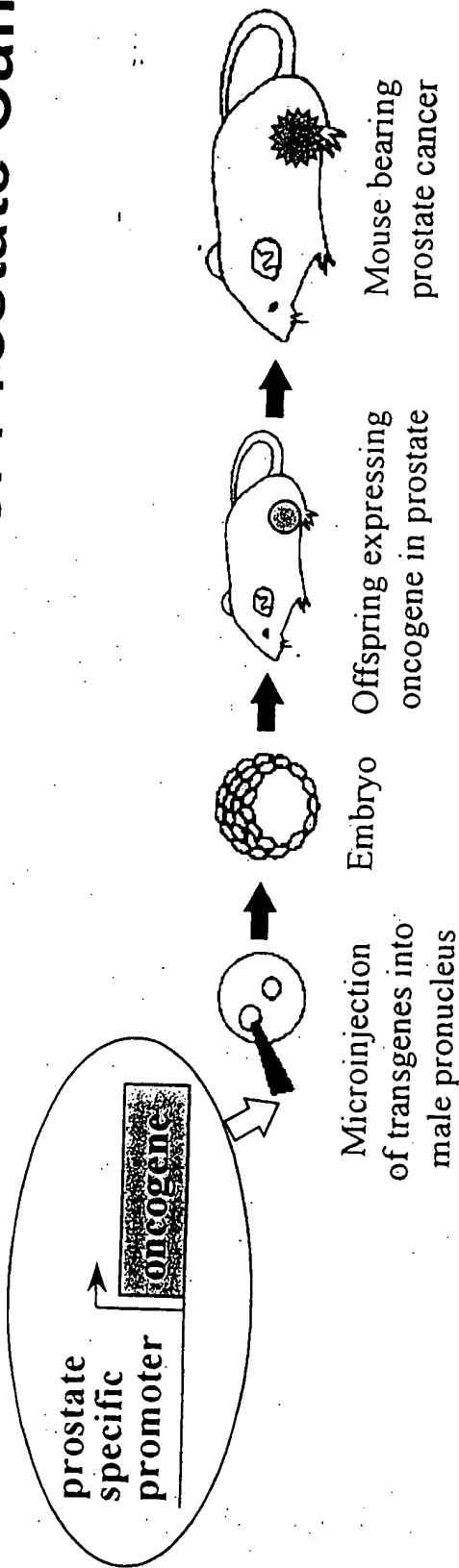


FIGURE 40

Transgenic Mouse Models of Prostate Cancer



Transgene	Target tissues	Characteristics
C3(1) (-3 kb)/ SV40 large+small T <i>Maroulakou et al.</i> 1994 <i>PNAS</i>	prostate (secretory cells) urethral, mammary and sweat gland	Low-grade PIN 8-12 wks High-grade PIN 8-12 wks Invasive carcinoma 28 wks No metastases
Probasin (-426 bp)/ SV40 large+small T <i>Greenberg et al.</i> 1995 <i>PNAS</i>	prostate (secretory cells)	Low-grade PIN 5-8 wks High-grade PIN 8-12 wks Invasive carcinoma 12 wks Metastases in lymph node, lung, liver and bone
Cryptdin2 (-6.5 kb)/ SV40 large+small T <i>Garabedian et al.</i> 1998 <i>PNAS</i>	prostate (neuroendocrine cells) small intestine	Low-grade PIN 8-12 wks High-grade PIN 8-12 wks Invasive carcinoma 16 wks Metastases in lymph node, lung, liver and bone

FIGURE 41

Reporter Gene Constructs for Transfection Assay

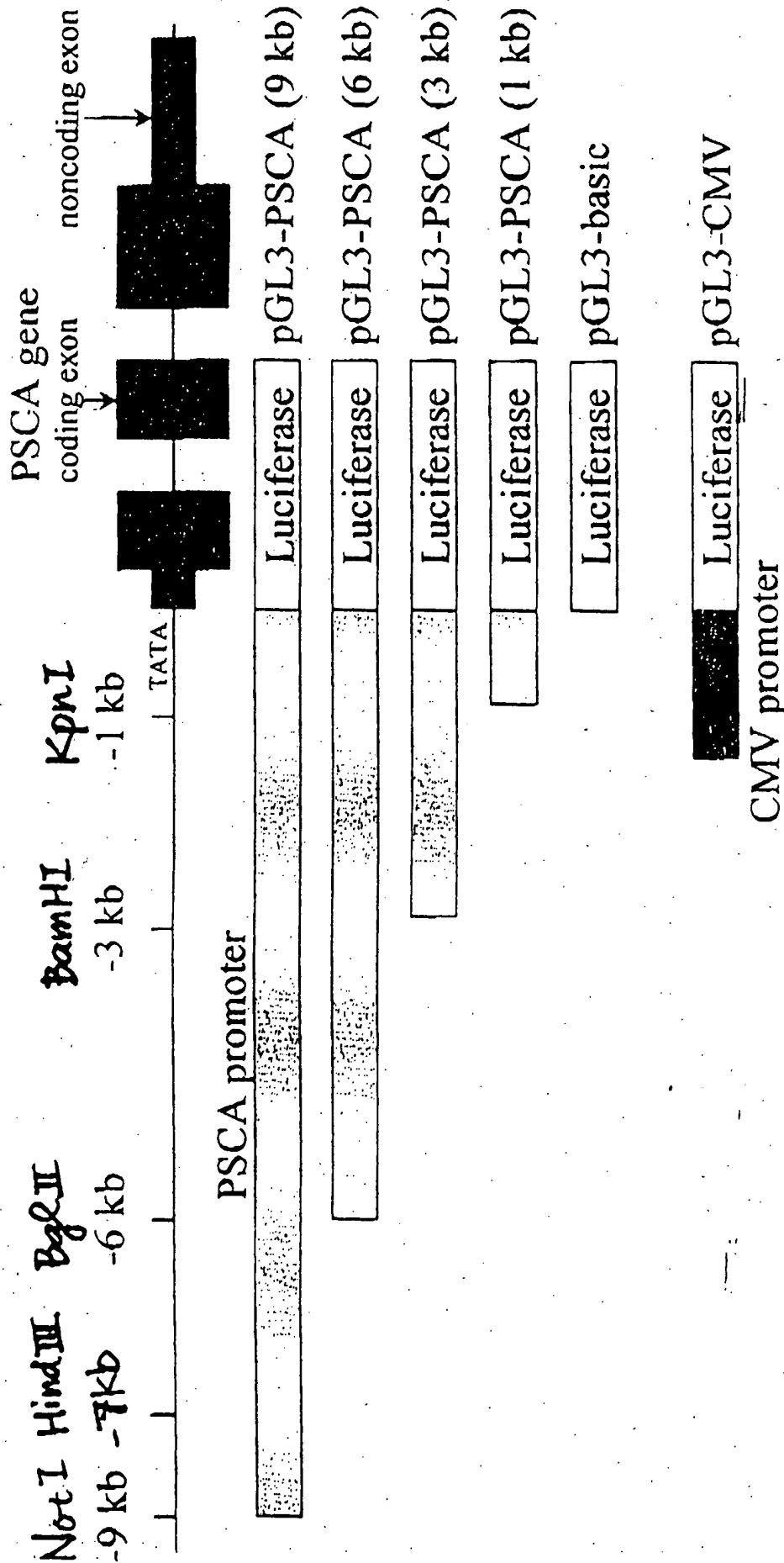


FIGURE 42

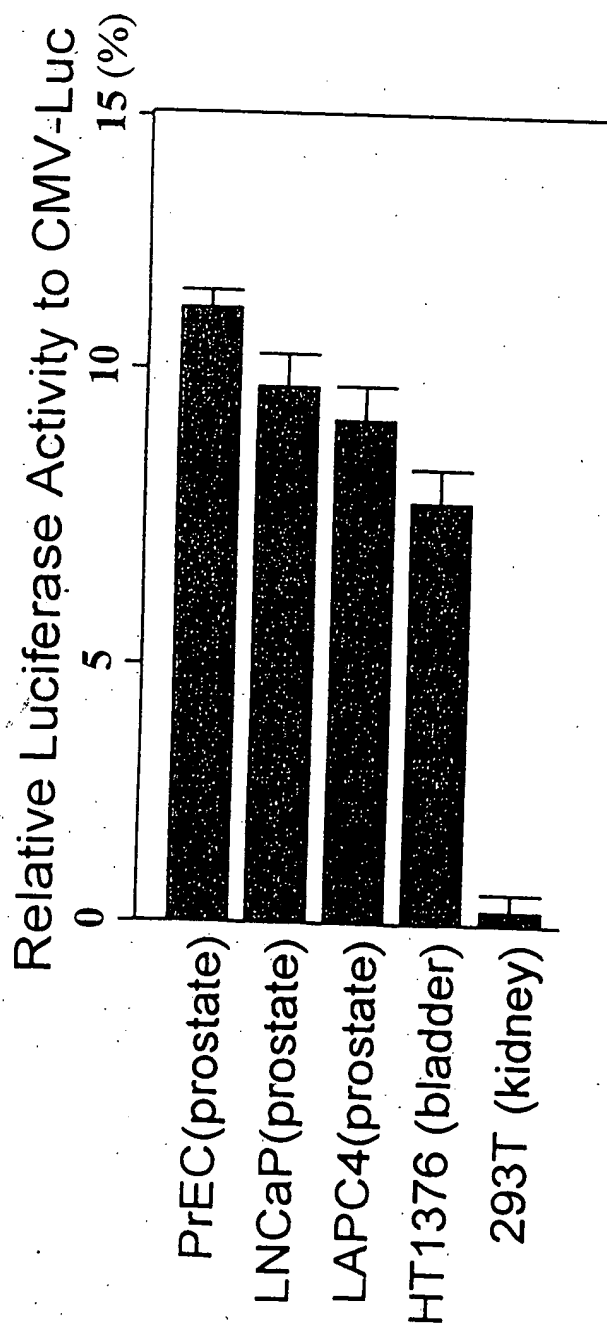


FIGURE 43

Identification of Prostate-Specific Elements Within PSCA Promoter Sequences

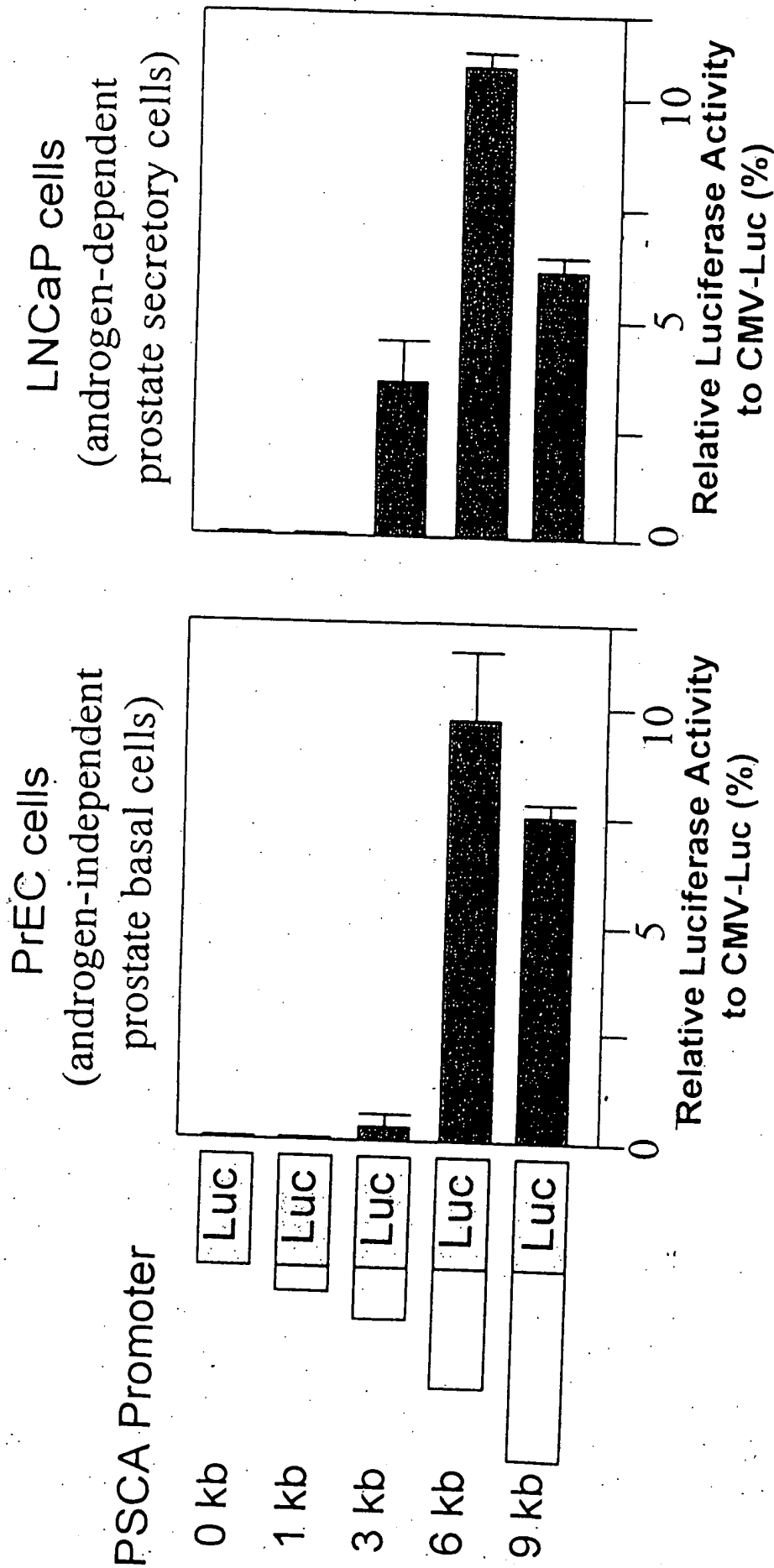


FIGURE 44

Update of Transgenic Mouse Projects

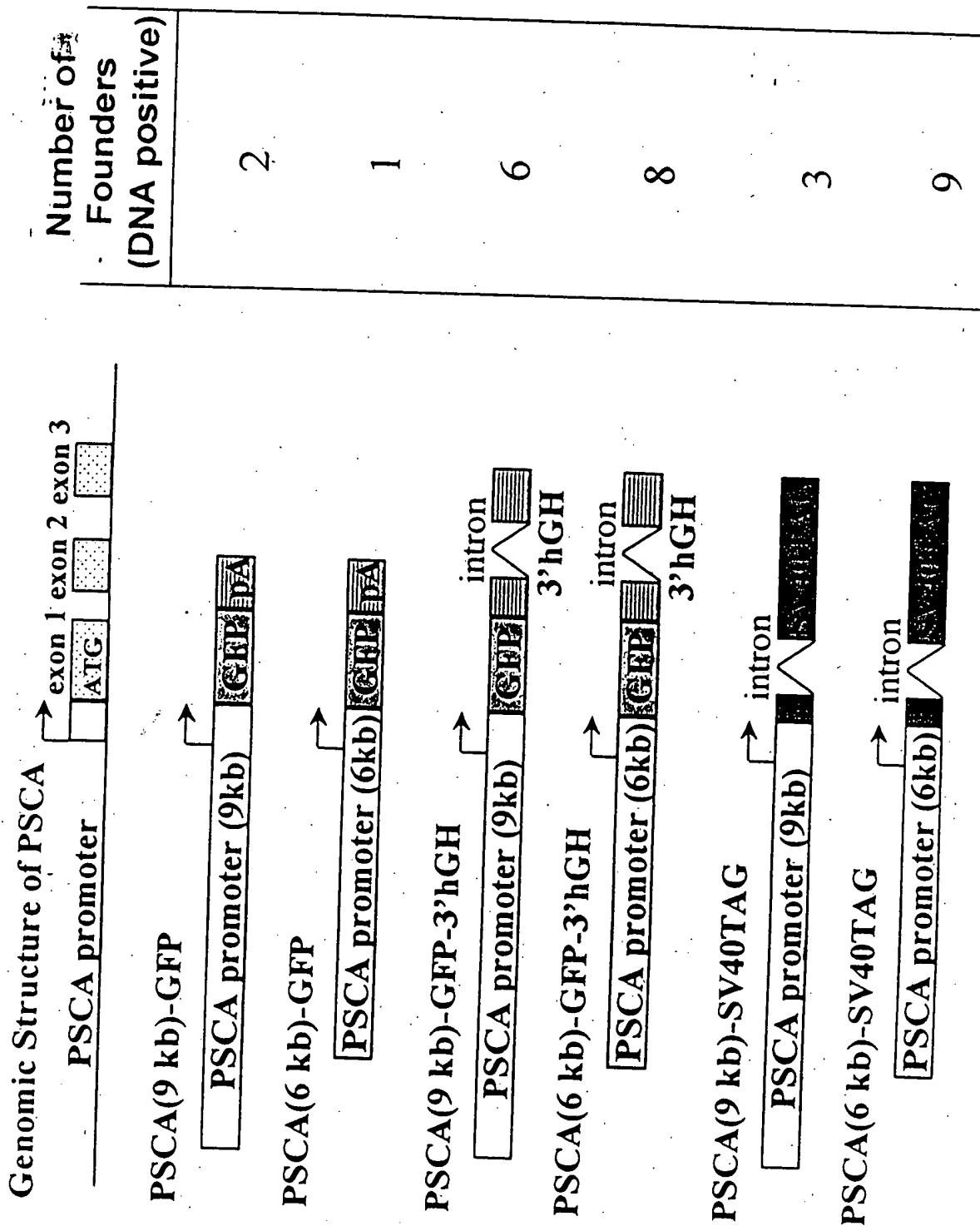
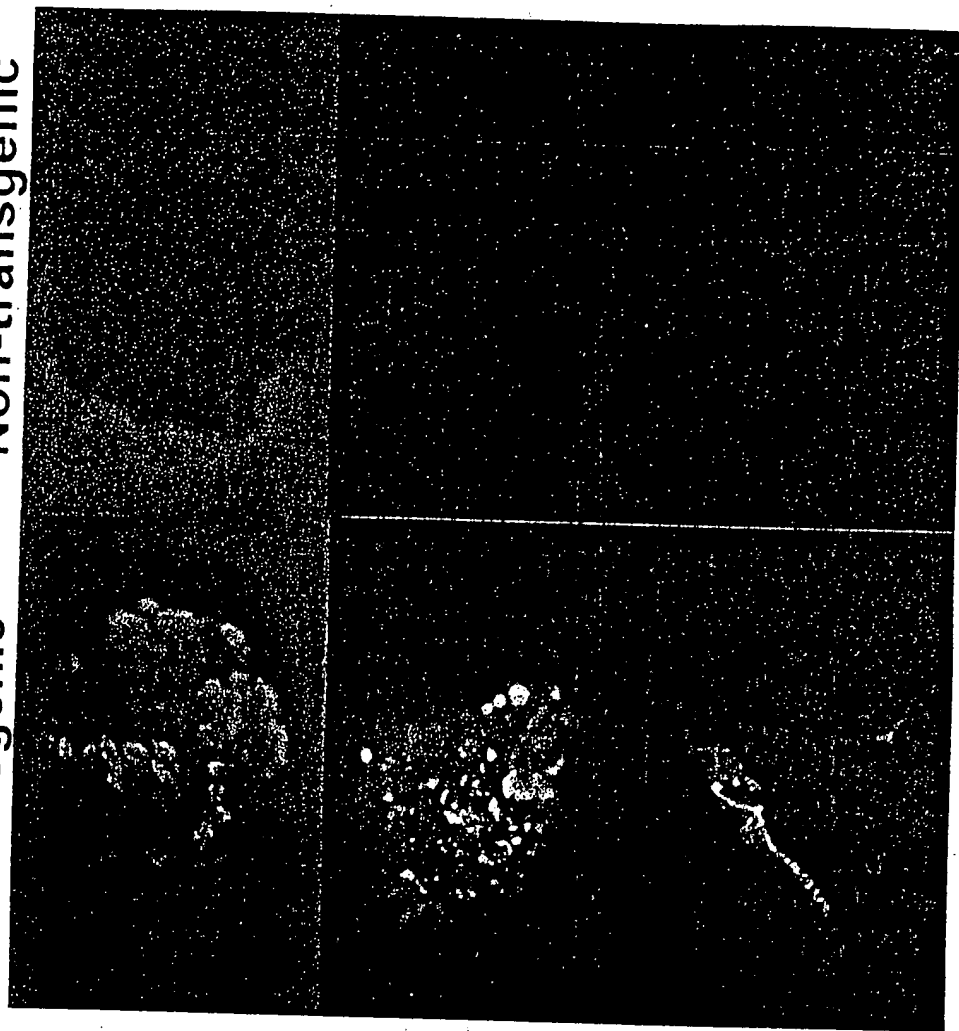


FIGURE 45

Whole-mount green fluorescence image
Transgenic Non-transgenic



Negative tissues

Stomach

Small intestine

Colon

Seminal Vesicle

Urethra

Testis

Liver

Kidney

Lung

Brain

Heart

Skeletal muscle

Ovary

Uterus

Prostate

(A25-106-2)

Bladder

(A25-104)

Skin

(A25-106-2)

HUMAN
Spleen
Thymus
Prostate
Testis
Ovary
S. int.
Colon
PBL

Heart
Brain
Placenta
Lung
Liver
Muscle
Kidney
Panc.

hPSCA→

Northern Analysis

MOUSE

MOUSE

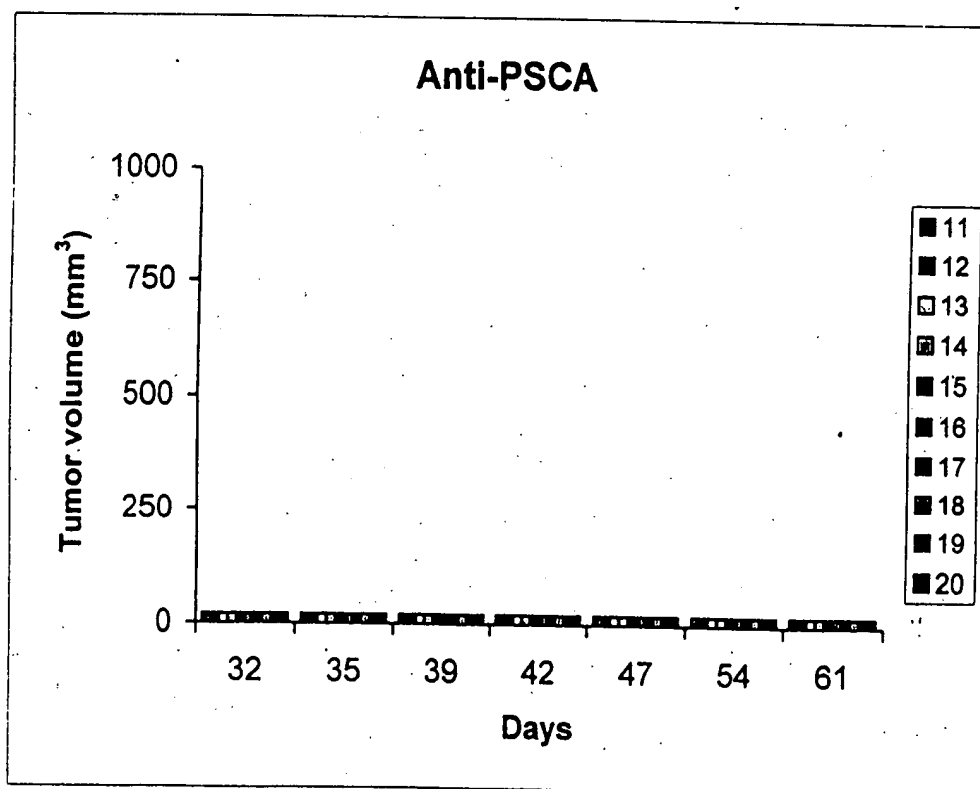
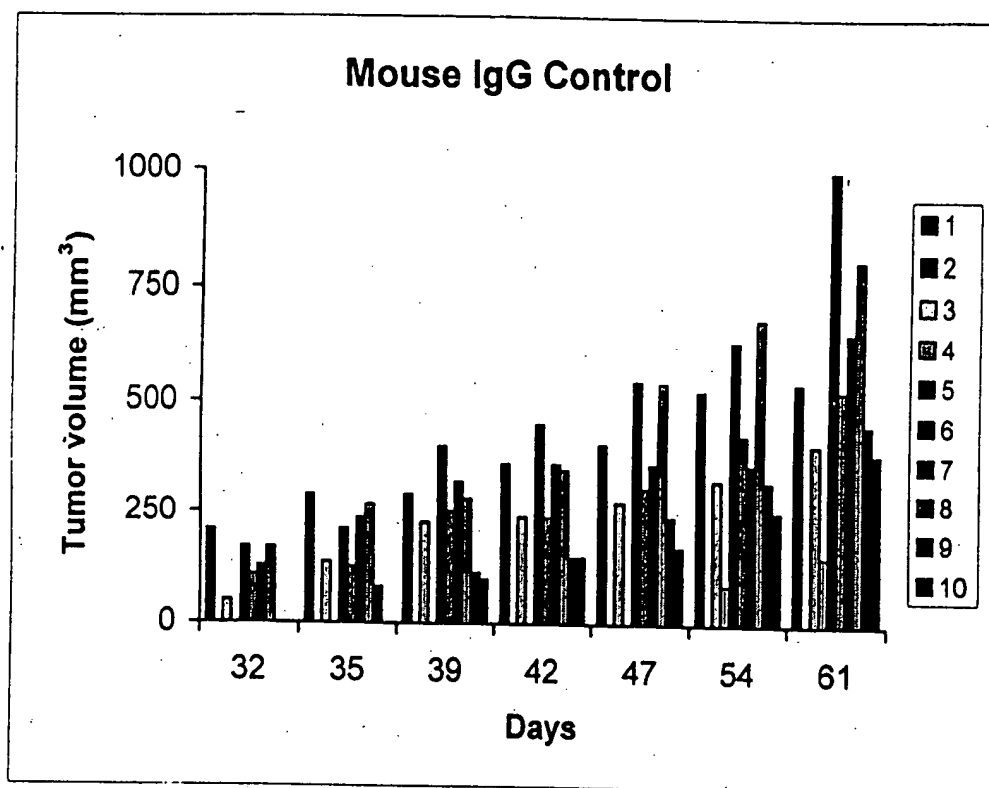
Ant. prostate
Dorso/Lat. prostate
Bladder prostate
Seminal vesicle
Urethral vesicle
Testis
Kidney
Esophagus
Cardiac stomach
Body of stomach
Pyloric stomach
Duodenum
Small intestine
Colon
Salivary gland
Spleen
Thymus
Bone marrow
Skeletal muscle
Heart
Brain
Eye
Lung
Liver
Skin

mPSCA \uparrow

mG3PDH \uparrow

RT-PCR

FIGURE 47.

[illegible]

A

FIG. 49

Epitope recognized (OD 450 nm)

<u>mAb</u>	<u>Isotype</u>	<u>F (18-98)</u>	<u>N (2-50)</u>	<u>M (46-109)</u>	<u>C (85-123)</u>
1G8	IgG1 k	1.485	0.004	1.273	0.003
2A2	IgG2a k	0.973	0.631	0.023	0.010
2H9	IgG1 k	1.069	1.026	0.002	0.001
3C5	IgG2a k	1.916	1.709	0.006	0.002
3E6	IgG3 k	1.609	0.036	1.133	2.118
3G3	IgG2a k	2.805	1.731	0.004	0.000
4A10	IgG2a k	1.053	0.493	0.000	0.001

B

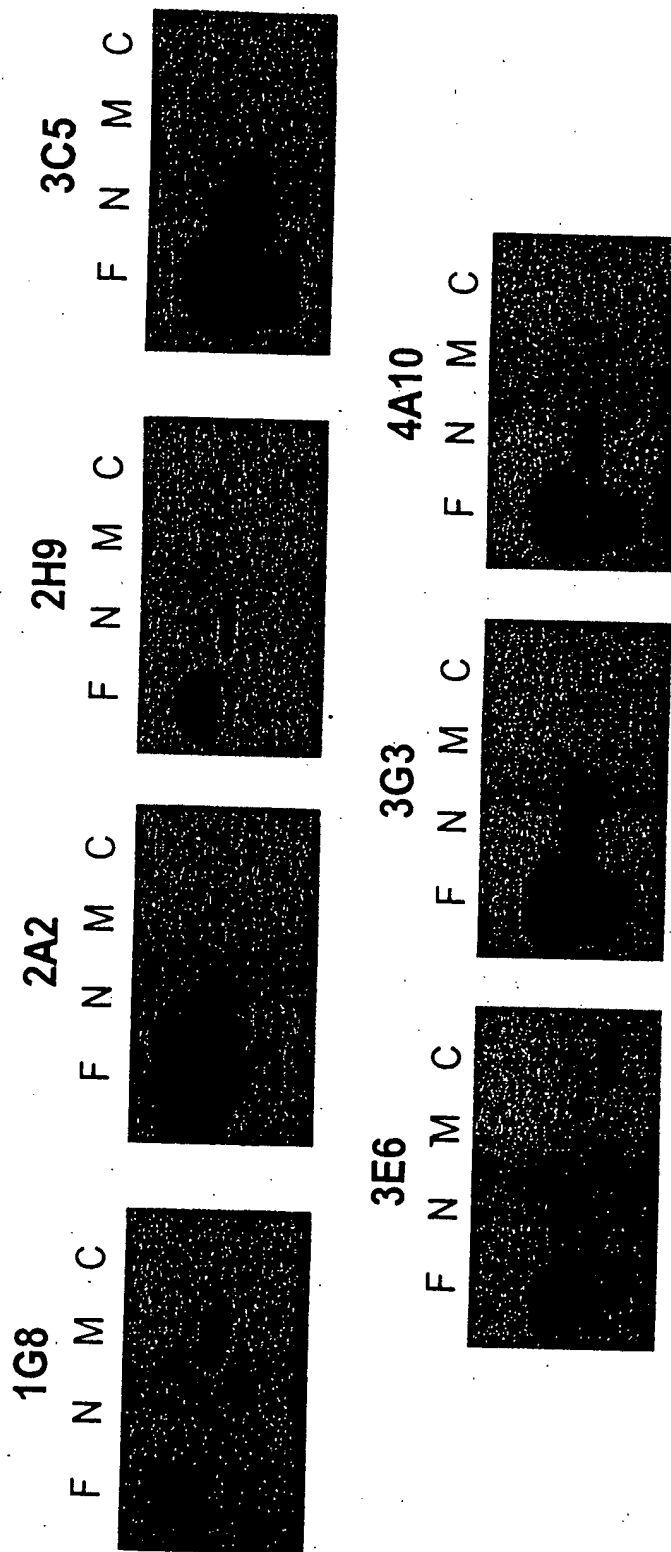
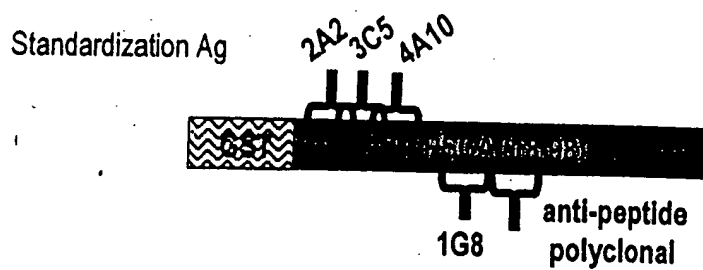
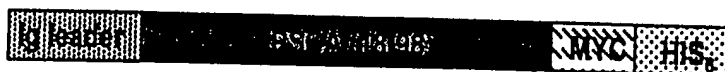


FIG. 50

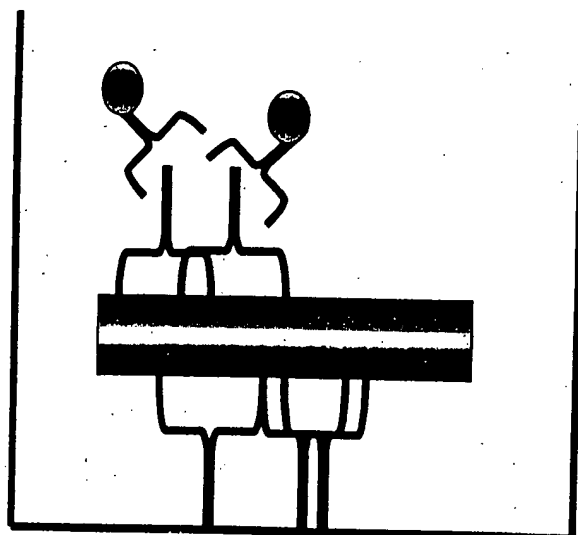
A



Engineered mammalian secreted form



B



Anti-IgG2a HRP

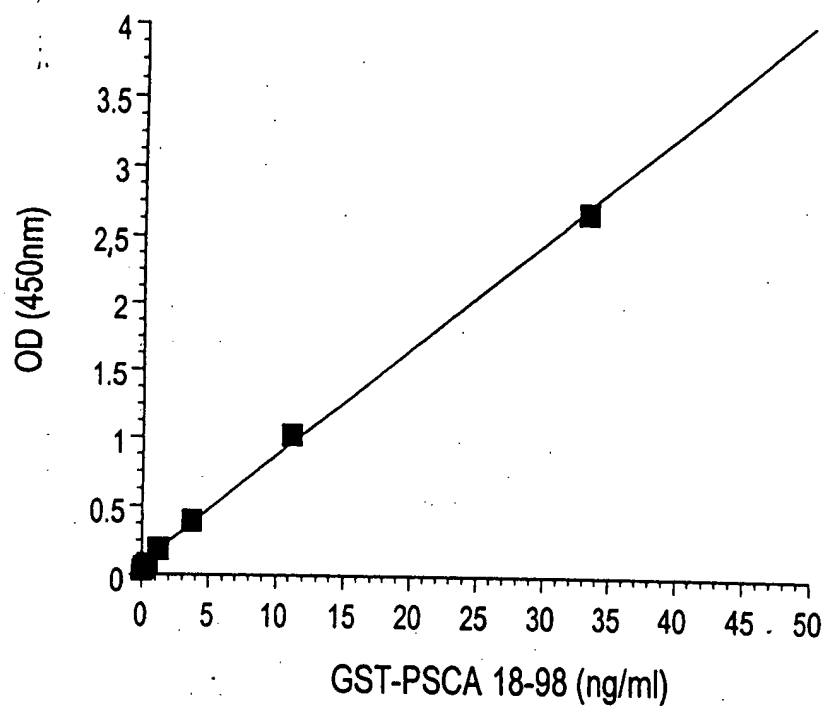
Anti-PSCA mAbs 3C5+4A10+2A2 (IgG2a)

PSCA

Affinity purified anti-peptide polyclonal
+ mAb 1G8 (IgG1)

FIG. 51

A



B

<u>Sample</u>	<u>OD+range (n=2)</u>	<u>ng/ml</u>
vector	0.005+0.001	ND
vector+hu serum	0.004+0.001	ND
secPSCA	2.695+0.031	32.92
secPSCA+hu serum	2.187+0.029	26.55

FIG. 52

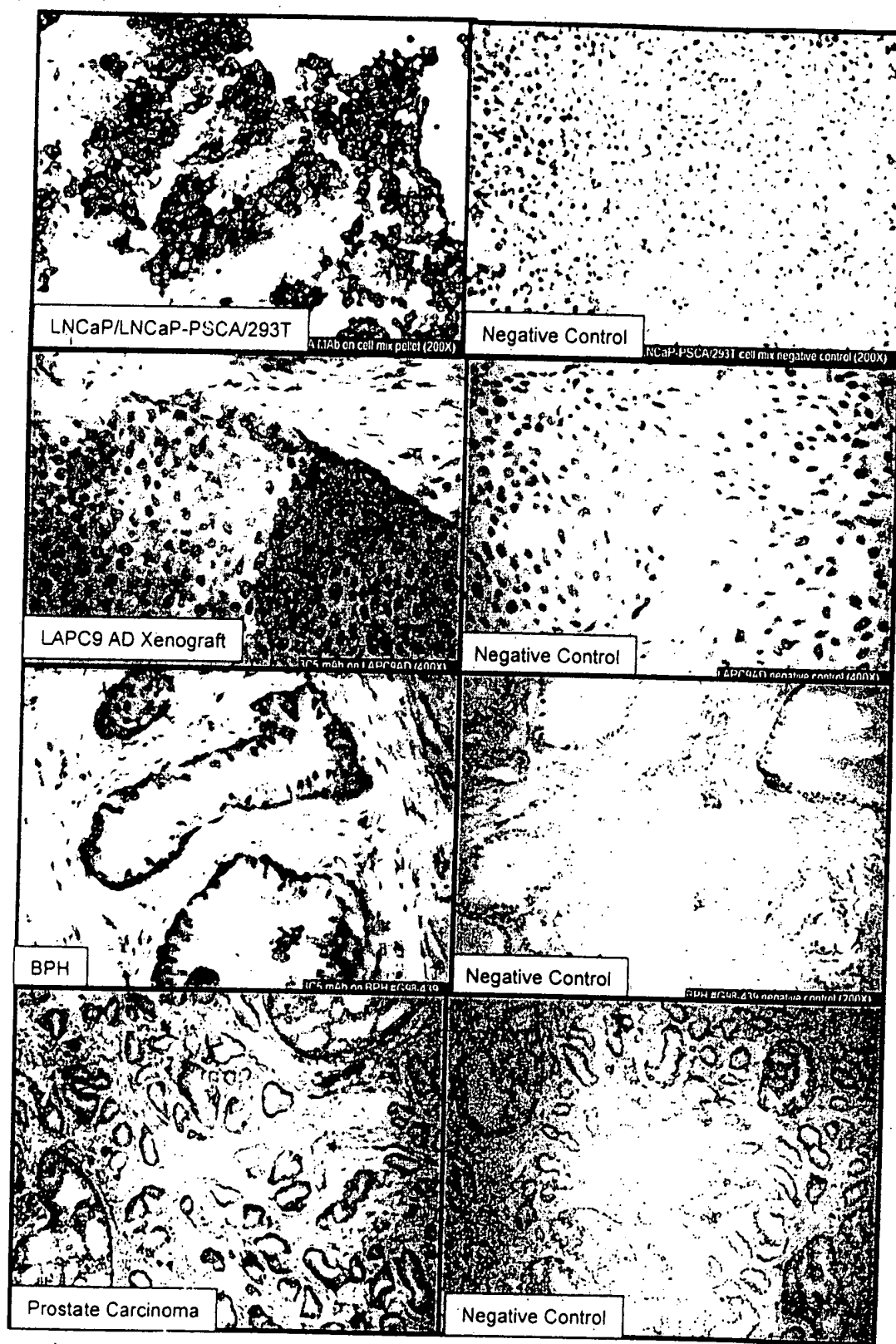
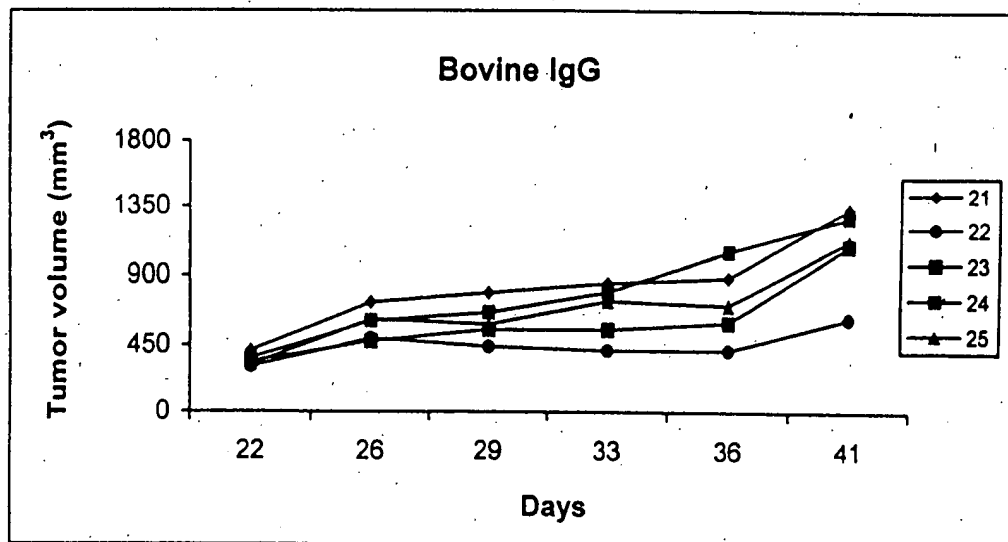
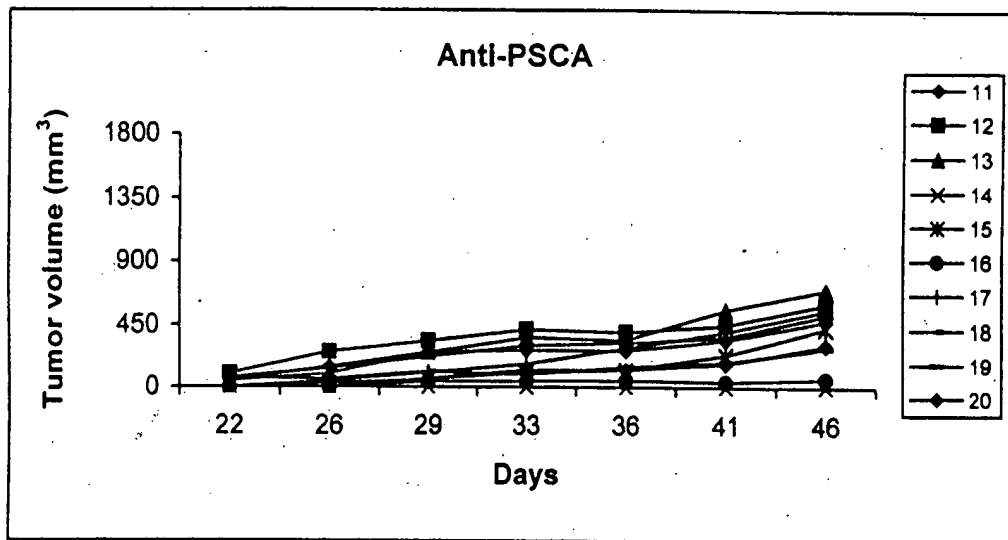
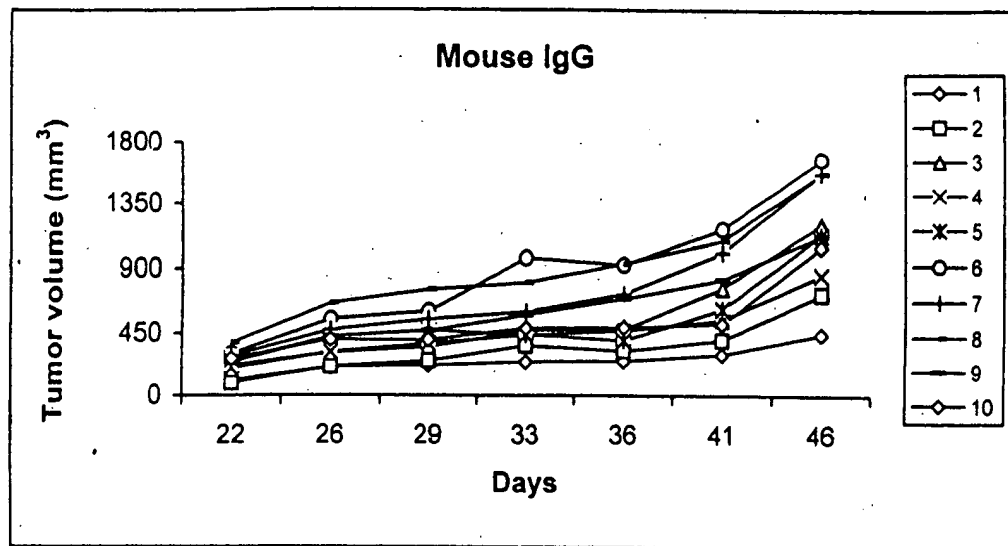


FIG. 53



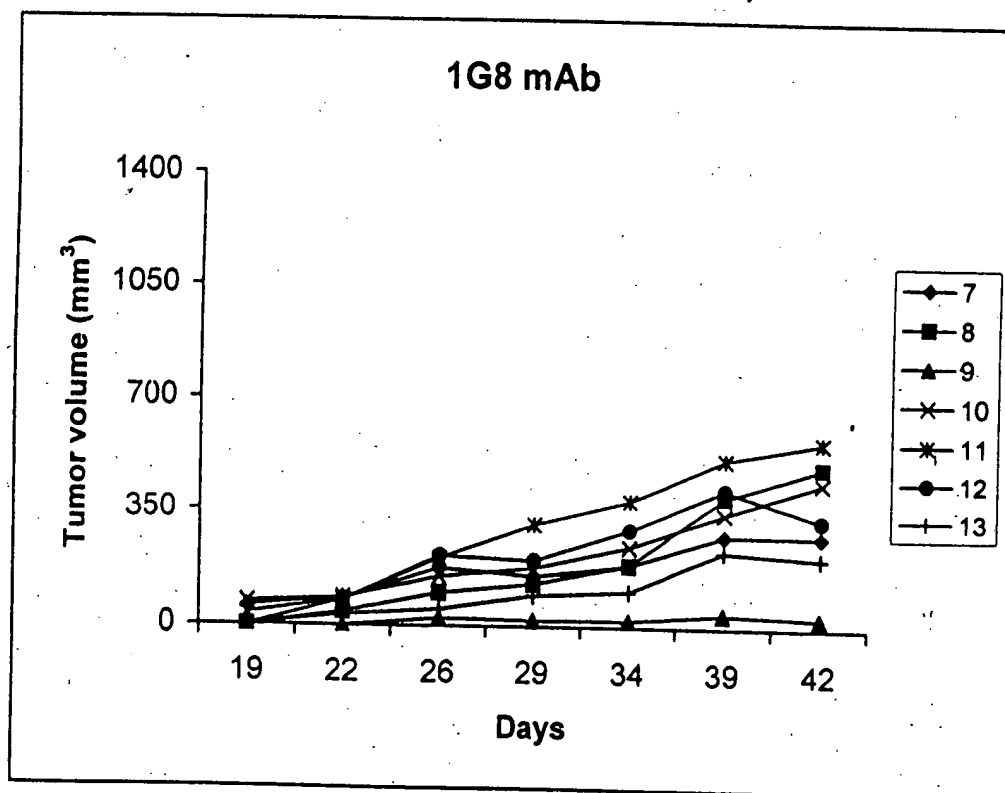
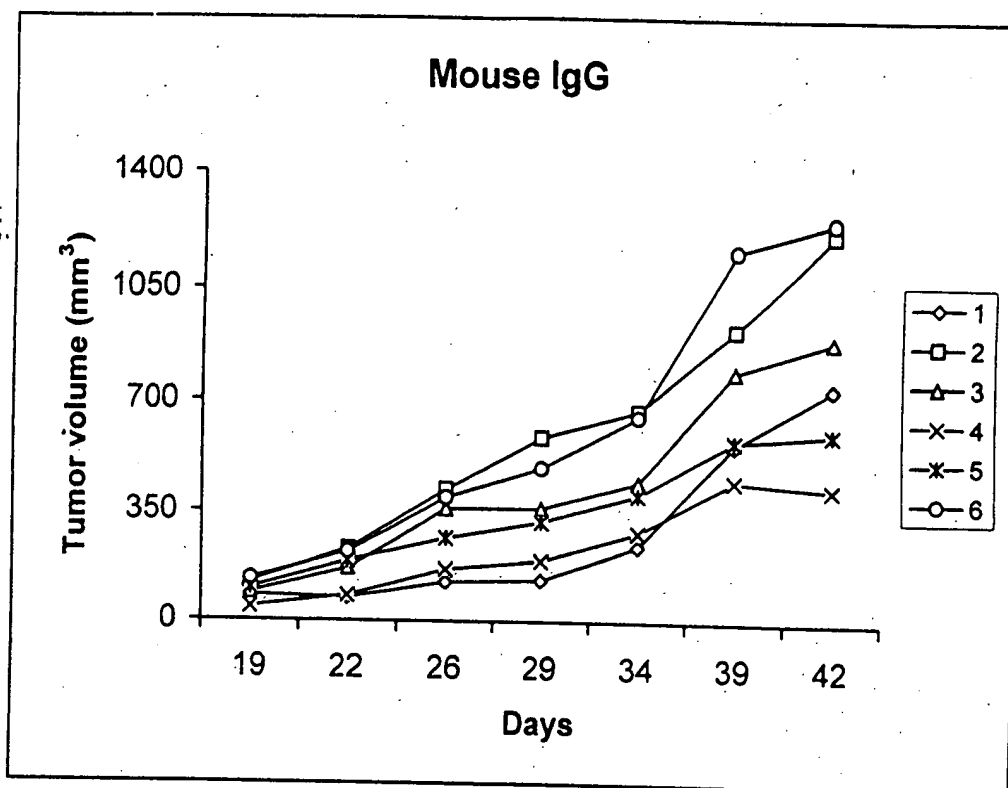
[illegible]

FIG. 55

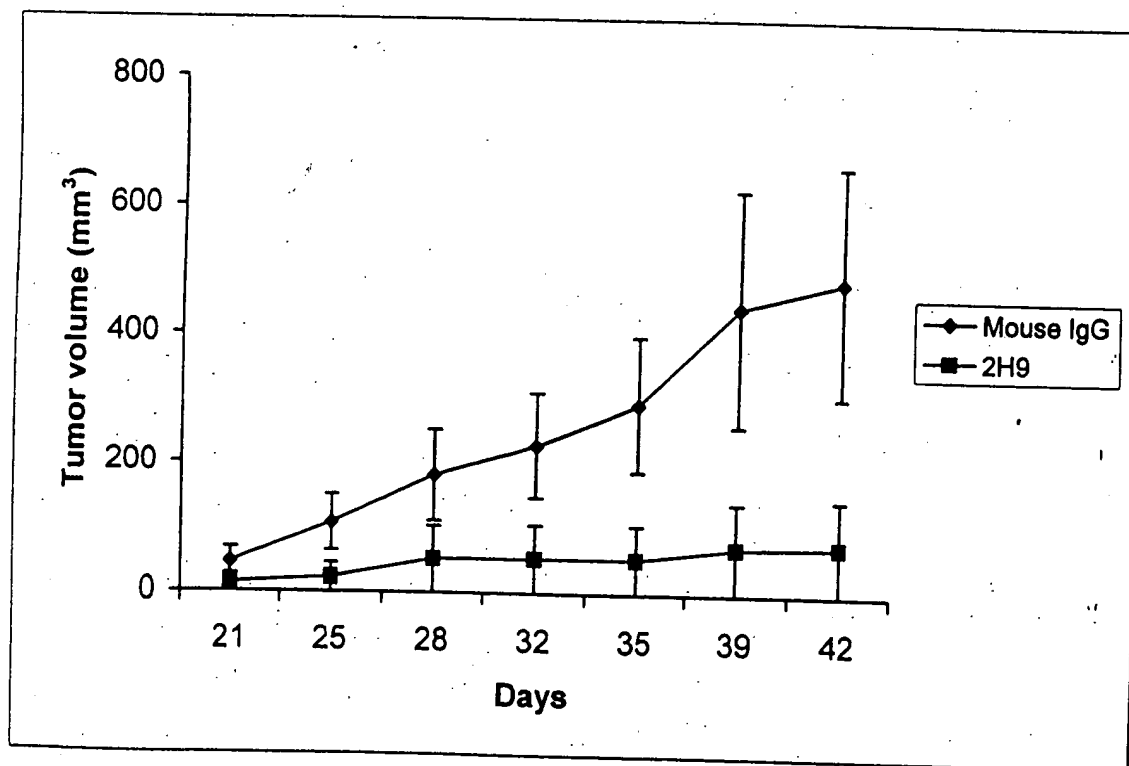
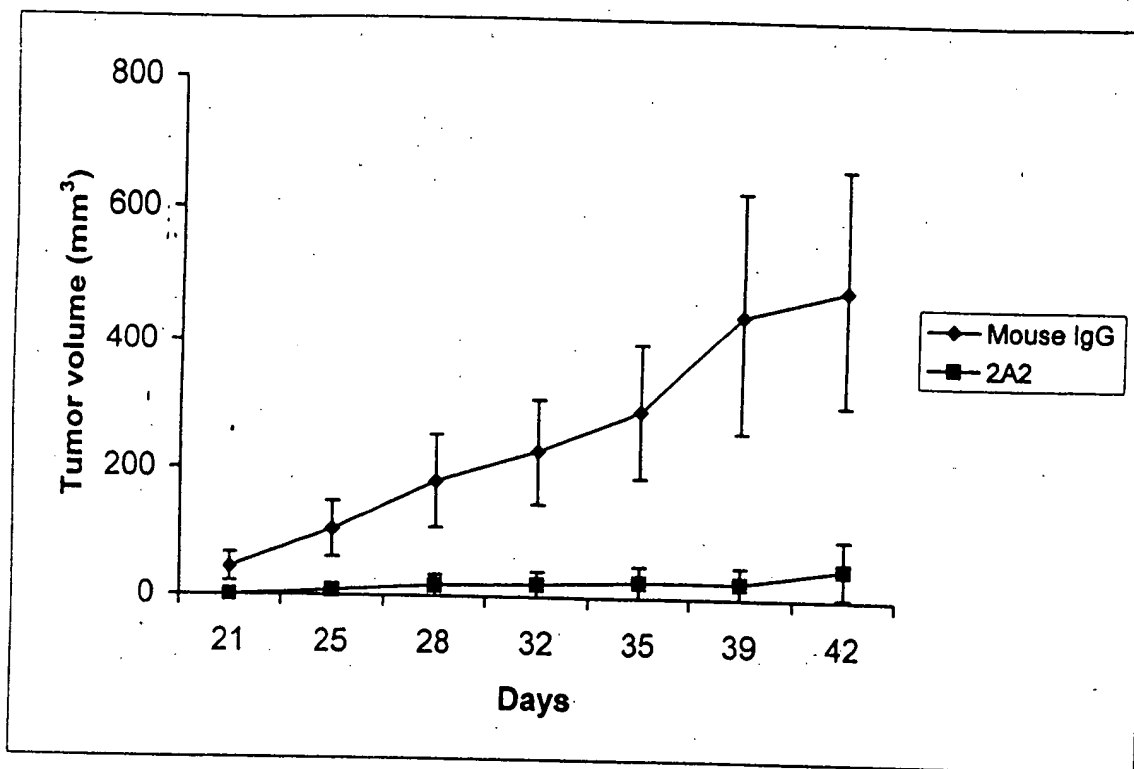


FIG. 56

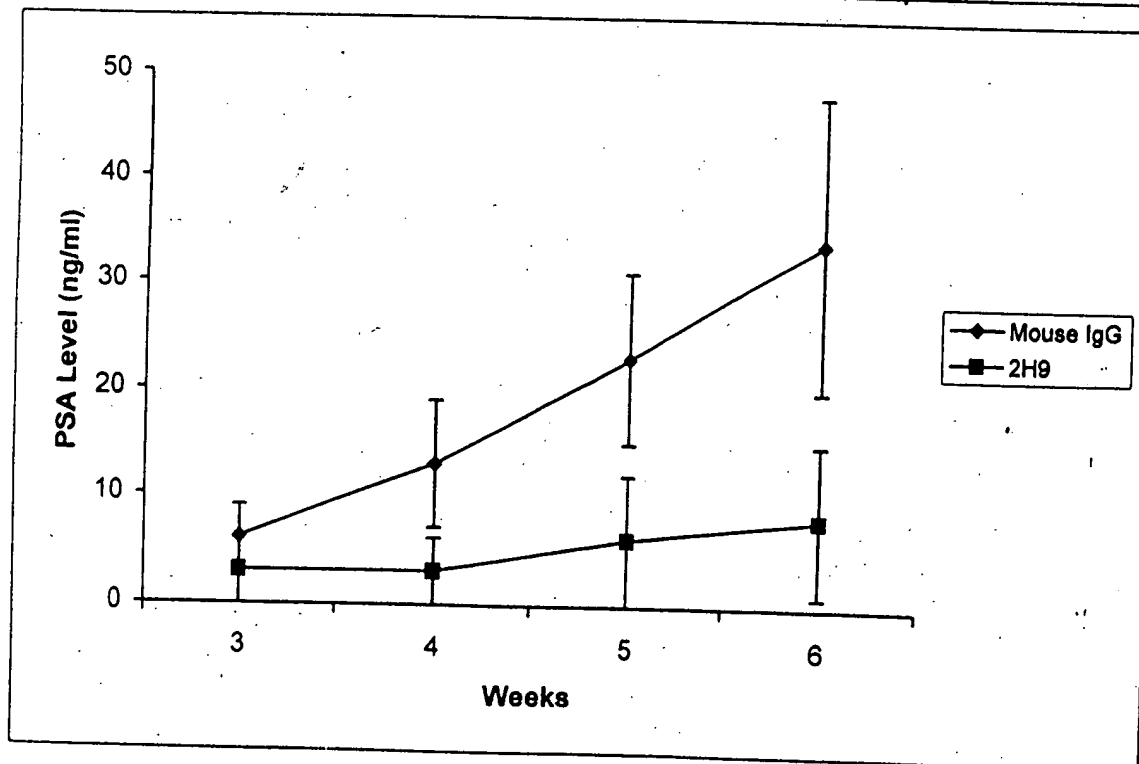
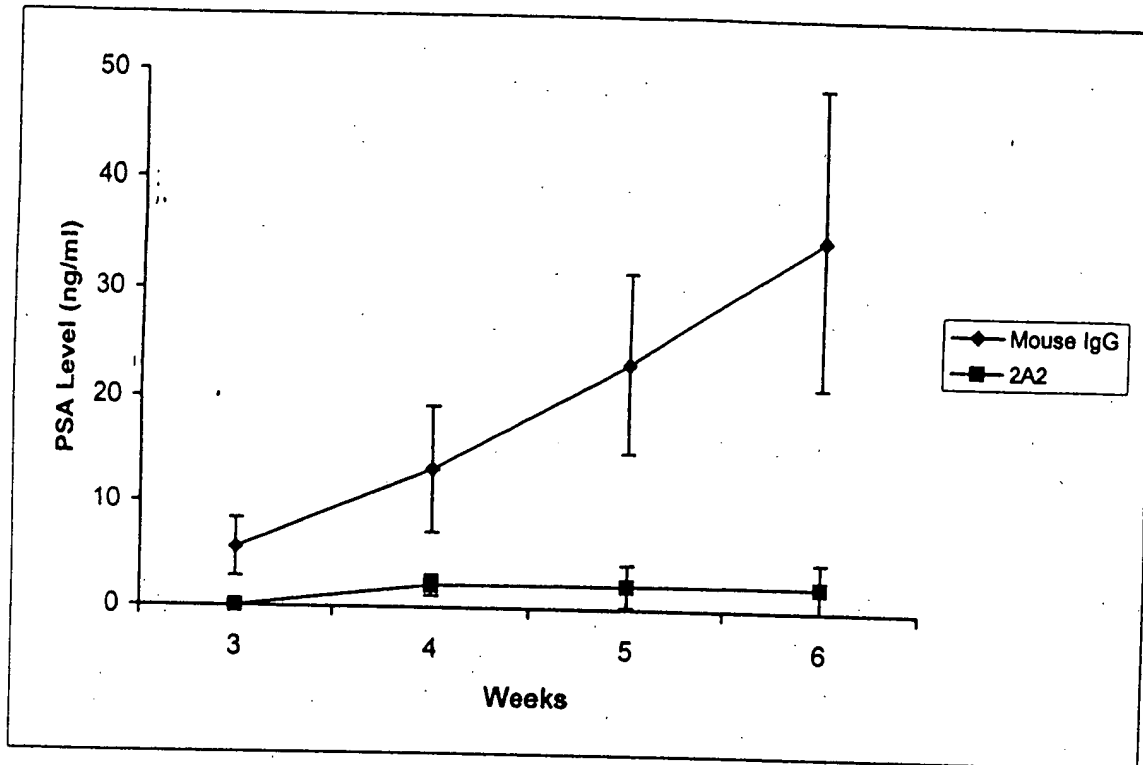


FIG. 57

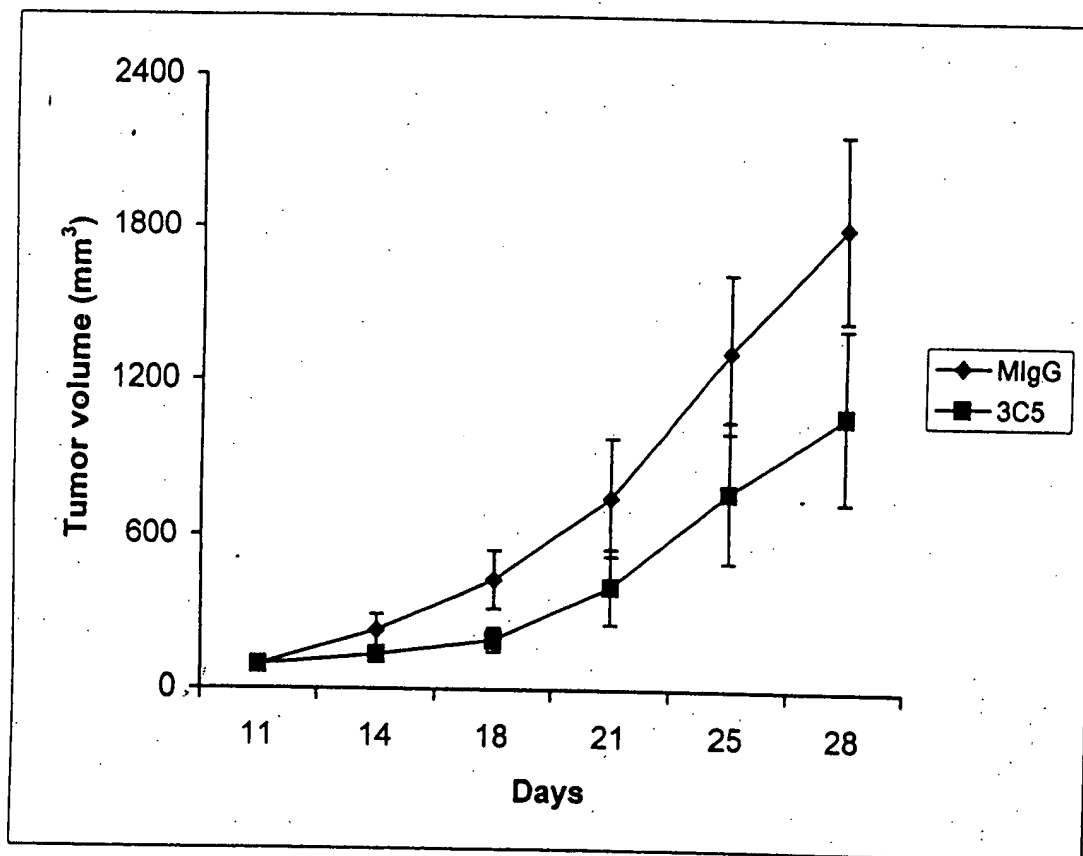


FIG. 58

TGCTTCTTCCTGATGGCAGTGGTTATAGGAGTCAATTCAGAGGTTGAGCTGCAGCAGTCT 60
C F F L M A V V I G V N S E V Q L Q Q S 20

GGGGCAGAACTTGTGAGGTCAGGGGCCTCAGTCAAGTTGTCCTGCACAGCTTCTGGCTTC 120
G A E L V R S G A S V K L S C T A S G F 40

———— CDR1 ————
AACATTAAAGACTACTATATACACTGGGTGAATCAGAGGCCTGACCAGGGCCTGGAGTGG 180
N I K D Y Y I H W V N Q R P D Q G L E W 60

———— CDR2 ————
ATTGGATGGATTGATCCTGAGAATGGTGACACTGAATTTGTCCCGAAGTTCCAGGGCAAG 240
I G W I D P E N G D T E F V P K F O G K 80

GCCACTATGACTGCAGACATTTTCTCCAACACAGCCTACCTGCACCTCAGCAGCCTGACA 300
A T M T A D I F S N T A Y L H L S S L T 100

———— CDR3 ————
TCTGAAGACACTGCCGTCTATTACTGTAAAACGGGGGGTTTCTGGGGCCAAGGGACTCTG 360
S E D T A V Y Y C K T G G F W G Q G T L 120

GTCACTGTCTCTGCAGCCAAAACGACACCCCCATCTGTCTATCCACTG
V T V S A A K T T P P S V Y P L

FIG. 59

TTGGTAGCAACAGCCTCAGATGTCCACTCCCAGGTCCAAGTGCAGCAACCTGGGTCTGAA 60
L V A T A S D V H S Q V Q L Q Q P G S E 20

CTGGTGAGGCCTGGAACCTTCAGTGAAGCTGTCCTGCAAGGCTTCTGGCTATACATTCTCC 120
L V R P G T S V K L S C K A S G Y T F S 40
CDR1

AGCTACTGGATGCACTGGGTGAAGCAGAGGCCTGGACAAGGCCTTGAGTGGATTGGAAAT 180
S Y W M H W V K Q R P G Q G L E W I G N 60

ATTGACCCTGGTAGTGGTTACACTAACTACGCTGAGAACCTCAAGACCAAGGCCACACTG 240
I D P G S G Y T N Y A E N L K T K A T L 80
CDR2

ACTGTAGACACATCCTCCAGCACAGCCTACATGCAGCTCAGCAGCCTGACATCTGAGGAC 300
T V D T S S S T A Y M Q L S S L T S E D 100

TCTGCAGTCTATTACTGTACAAGCCGATCTACTATGATTACGACGGGATTTGCTTACTGG 360
S A V Y Y C T S R S T M I T T G F A Y W 120
CDR3

GGCCAAGGGACTCTGGTCACTGTCTCTGCAGCTACAACAACAGCCCCATCTGTCTATCCA 420
G Q G T L V T V S A A T T T A P S V Y P 160

CTGGCC

L A

144553 E24E603

12124
 12125
 12126
 12127
 12128
 12129
 12130
 12131
 12132
 12133
 12134
 12135
 12136
 12137
 12138
 12139
 12140
 12141
 12142
 12143
 12144
 12145
 12146
 12147
 12148
 12149
 12150
 12151
 12152
 12153
 12154
 12155
 12156
 12157
 12158
 12159
 12160
 12161
 12162
 12163
 12164
 12165
 12166
 12167
 12168
 12169
 12170
 12171
 12172
 12173
 12174
 12175
 12176
 12177
 12178
 12179
 12180
 12181
 12182
 12183
 12184
 12185
 12186
 12187
 12188
 12189
 12190
 12191
 12192
 12193
 12194
 12195
 12196
 12197
 12198
 12199
 12200
 12201
 12202
 12203
 12204
 12205
 12206
 12207
 12208
 12209
 12210
 12211
 12212
 12213
 12214
 12215
 12216
 12217
 12218
 12219
 12220
 12221
 12222
 12223
 12224
 12225
 12226
 12227
 12228
 12229
 12230
 12231
 12232
 12233
 12234
 12235
 12236
 12237
 12238
 12239
 12240
 12241
 12242
 12243
 12244
 12245
 12246
 12247
 12248
 12249
 12250
 12251
 12252
 12253
 12254
 12255
 12256
 12257
 12258
 12259
 12260
 12261
 12262
 12263
 12264
 12265
 12266
 12267
 12268
 12269
 12270
 12271
 12272
 12273
 12274
 12275
 12276
 12277
 12278
 12279
 12280
 12281
 12282
 12283
 12284
 12285
 12286
 12287
 12288
 12289
 12290
 12291
 12292
 12293
 12294
 12295
 12296
 12297
 12298
 12299
 12300
 12301
 12302
 12303
 12304
 12305
 12306
 12307
 12308
 12309
 12310
 12311
 12312
 12313
 12314
 12315
 12316
 12317
 12318
 12319
 12320
 12321
 12322
 12323
 12324
 12325
 12326
 12327
 12328
 12329
 12330
 12331
 12332
 12333
 12334
 12335
 12336
 12337
 12338
 12339
 12340
 12341
 12342
 12343
 12344
 12345
 12346
 12347
 12348
 12349
 12350
 12351
 12352
 12353
 12354
 12355
 12356
 12357
 12358
 12359
 12360
 12361
 12362
 12363
 12364
 12365
 12366
 12367
 12368
 12369
 12370
 12371
 12372
 12373
 12374
 12375
 12376
 12377
 12378
 12379
 12380
 12381
 12382
 12383
 12384
 12385
 12386
 12387
 12388
 12389
 12390
 12391
 12392
 12393
 12394
 12395
 12396
 12397
 12398
 12399
 12400
 12401
 12402
 12403
 12404
 12405
 12406
 12407
 12408
 12409
 12410
 12411
 12412
 12413
 12414
 12415
 12416
 12417
 12418
 12419
 12420
 12421
 12422
 12423
 12424
 12425
 12426
 12427
 12428
 12429
 12430
 12431
 12432
 12433
 12434
 12435
 12436
 12437
 12438
 12439
 12440
 12441
 12442
 12443
 12444
 12445
 12446
 12447
 12448
 12449
 12450
 12451
 12452
 12453
 12454
 12455
 12456
 12457
 12458
 12459
 12460
 12461
 12462
 12463
 12464
 12465
 12466
 12467
 12468
 12469
 12470
 12471
 12472
 12473
 12474
 12475
 12476
 12477
 12478
 12479
 12480
 12481
 12482
 12483
 12484
 12485
 12486
 12487
 12488
 12489
 12490
 12491
 12492
 12493
 12494
 12495
 12496
 12497
 12498
 12499
 12500
 12501
 12502
 12503
 12504
 12505
 12506
 12507
 12508
 12509
 12510
 12511
 12512
 12513
 12514
 12515
 12516
 12517
 12518
 12519
 12520
 12521
 12522
 12523
 12524
 12525
 12526
 12527
 12528
 12529
 12530
 12531
 12532
 1

CCCCATCTGTCTATCCACTGGCCCCTTGTTGA
P P S V Y P L A P C V

FIG. 61

CDR1 Comparisons

1G8	1gG _{1k}	Middle	G	F	N	I	K	D	Y	Y	I	H
2H9	1gG _{1k}	N-Term.	G	F	T	F	S	N	Y	W	M	T
4A10	1gG _{2ak}	N-Term.	G	Y	T	F	S	S	Y	W	M	H

CDR2 Comparisons

1G8	1gG _{1k}	W	I	D	P	E	N	G	D	T	E	F	V	P	K	F	Q	G		
2H9	1gG _{1k}	E	I	R	L	R	S	E	N	Y	A	T	H	Y	A	E	S	V	K	G
4A10	1gG _{2ak}	N	I	D	P	G	S	G	Y	T	N	Y	A	E	N	L	K	T		

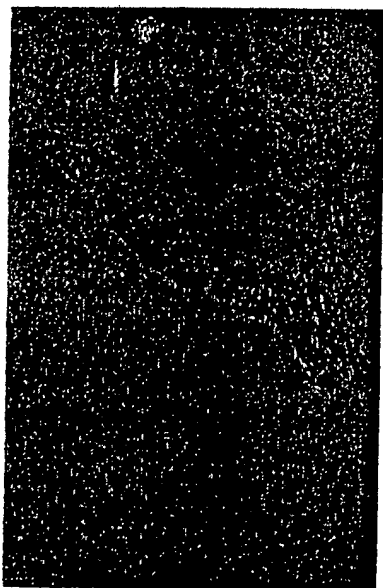
CDR3 Comparisons

1G8	1gG _{1k}	G	G	F													
2H9	1gG _{1k}	L	G	R	P	N											
4A10	1gG _{2ak}	R	S	T	M	I	T	T	G	F	A	Y					

1G8 2H9 4A10

FIG. 62

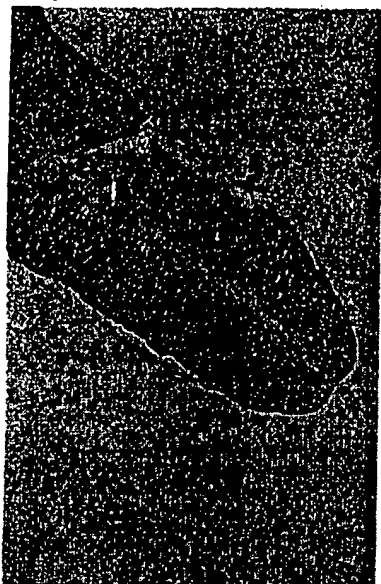
A



C



B



D

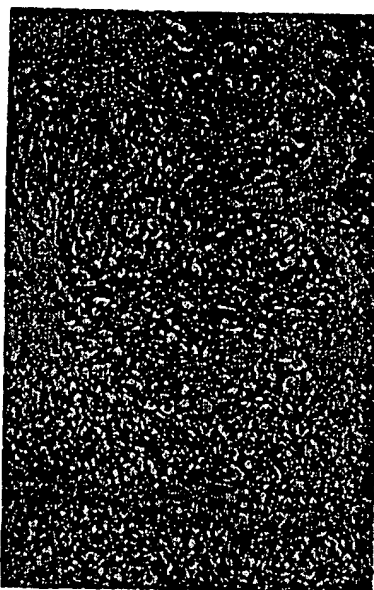
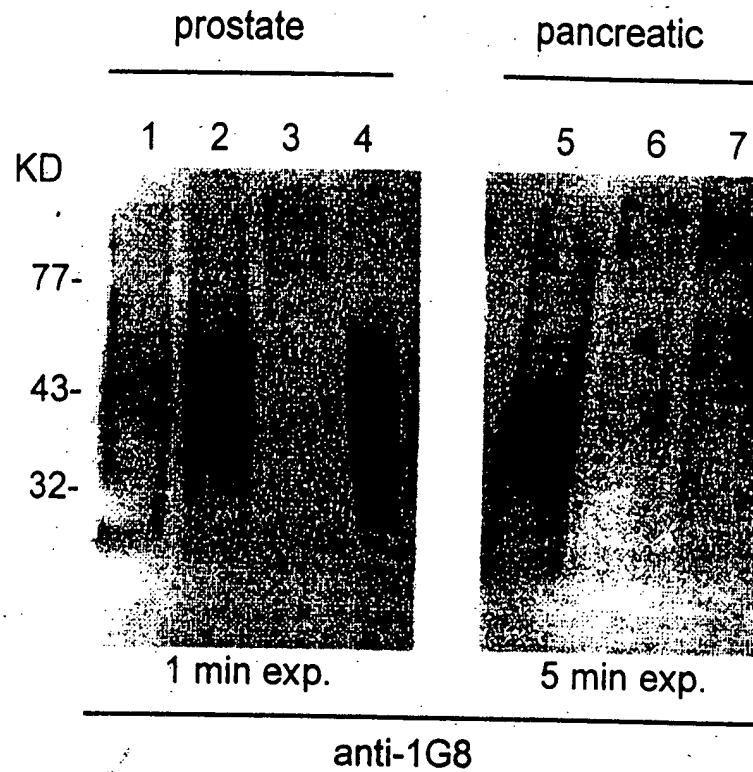


FIG. 64



1. LAPC-4 AD
2. LAPC-9 AI
3. LNCaP
4. LNCaP-PSCA

5. HPAC
6. Capan-1
7. ASPC-1

LAPC-9

Tumor volume (mm³)

Days

Legend: Mouse IgG (diamonds), 1G8 (squares)

Days	Mouse IgG (mm ³)	1G8 (mm ³)
19	~100	~20
22	~150	~50
26	~280	~100
29	~320	~120
34	~420	~180
39	~720	~280
42	~800	~300

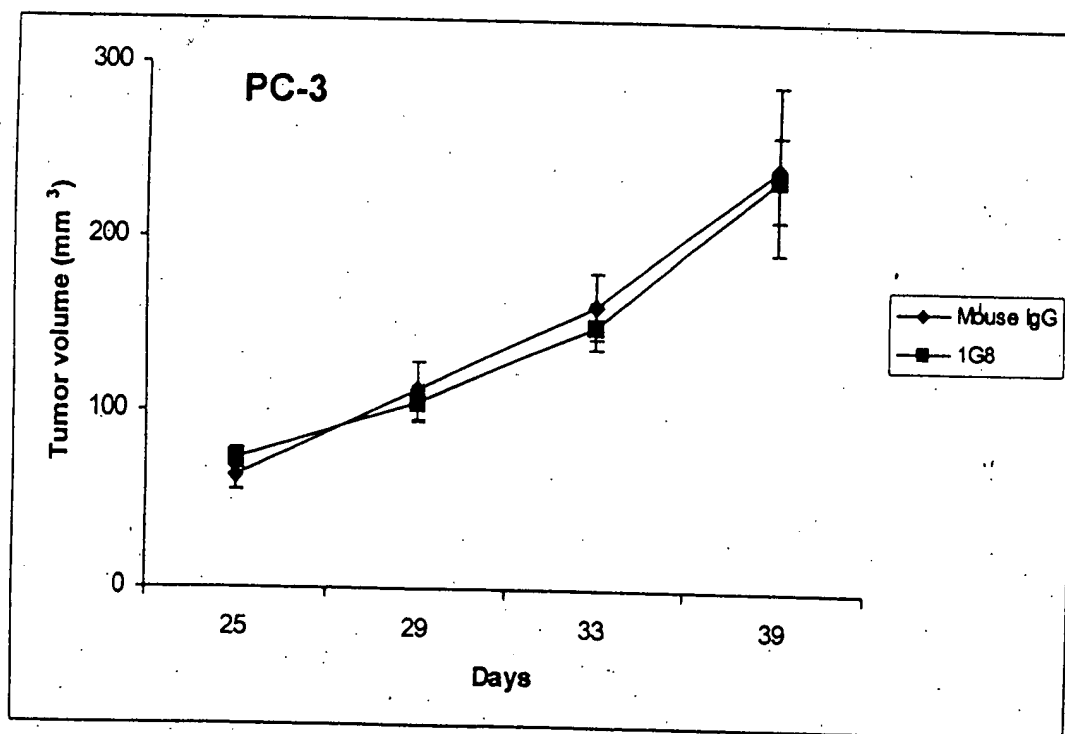
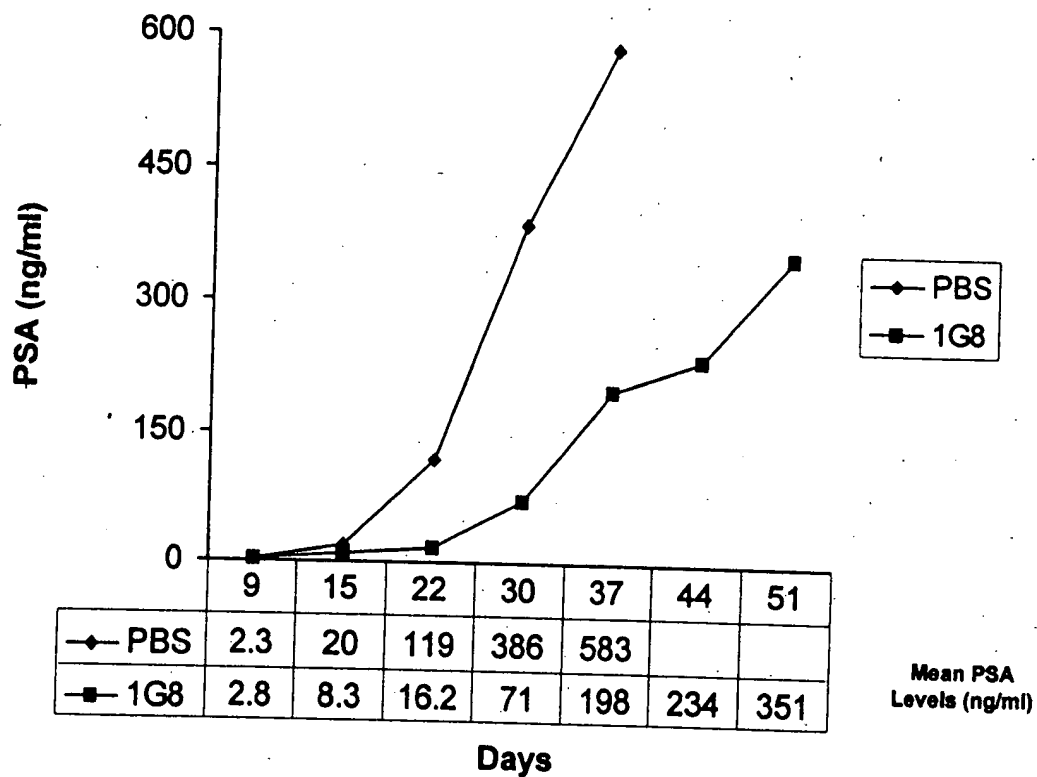


FIGURE 65

A)



B)

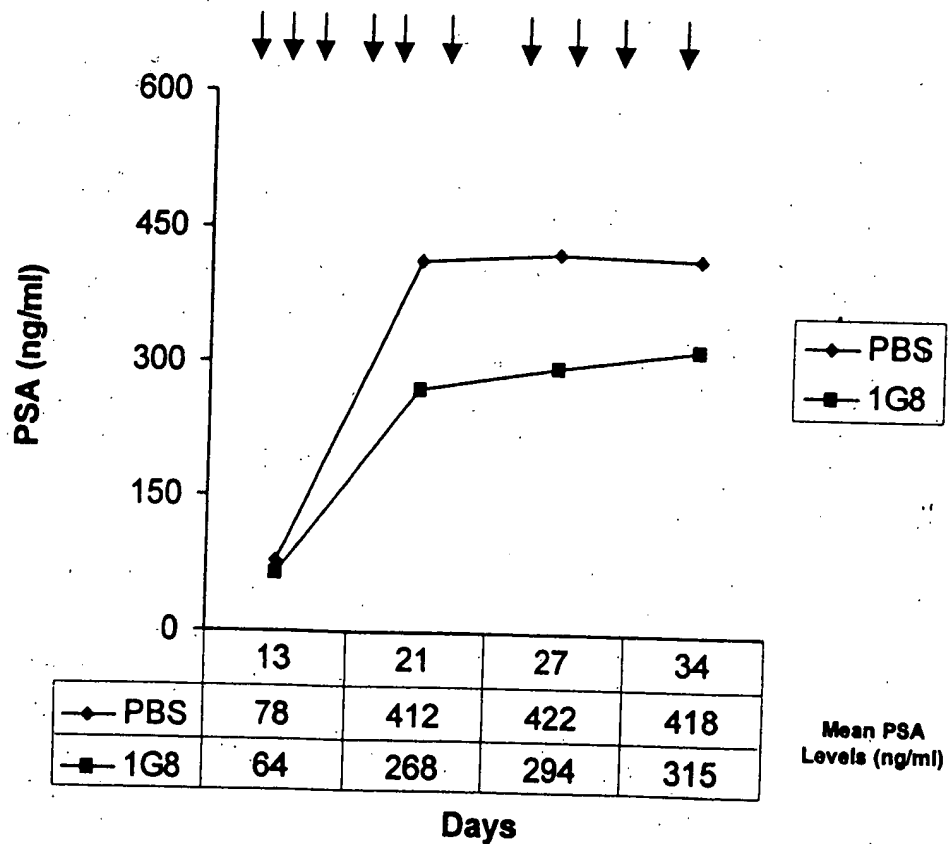
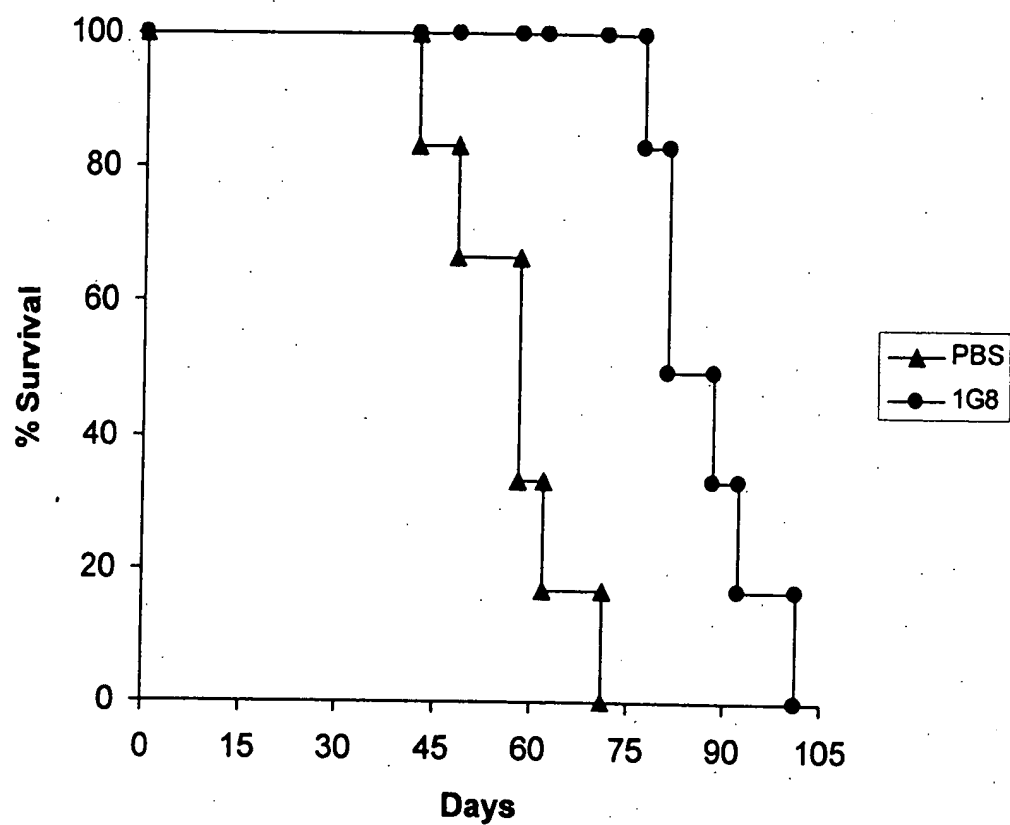


Figure 66

A)



B)

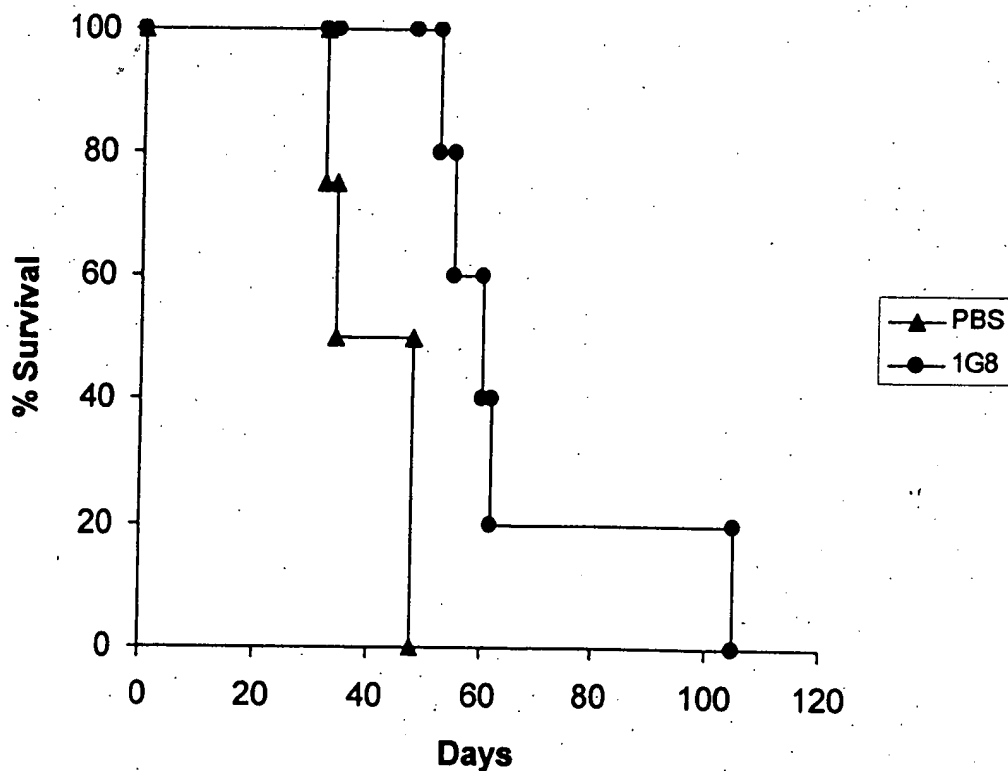
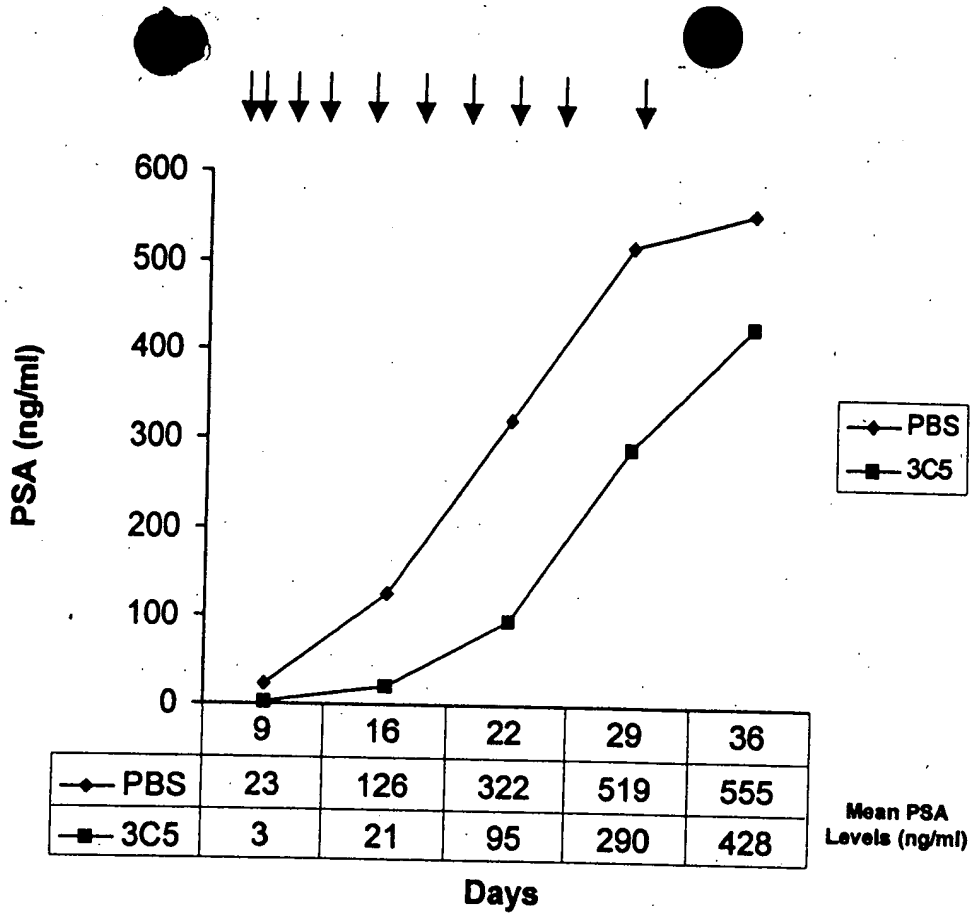


Figure 67

A)



B)

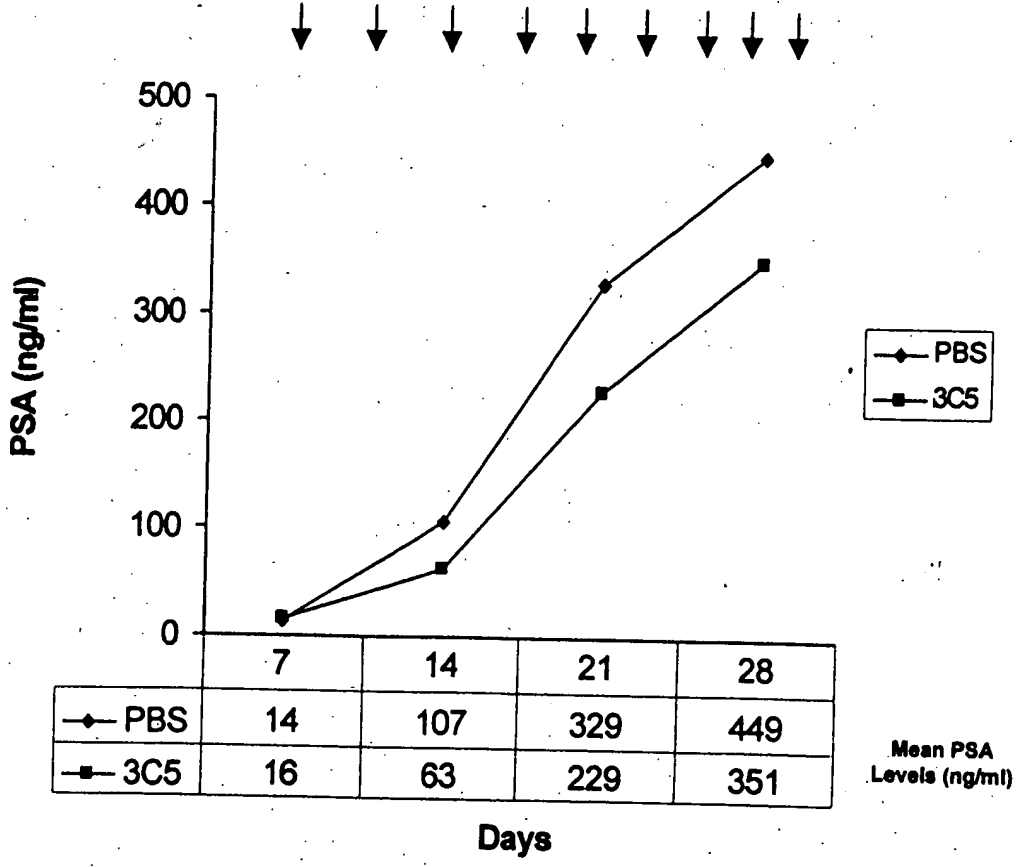
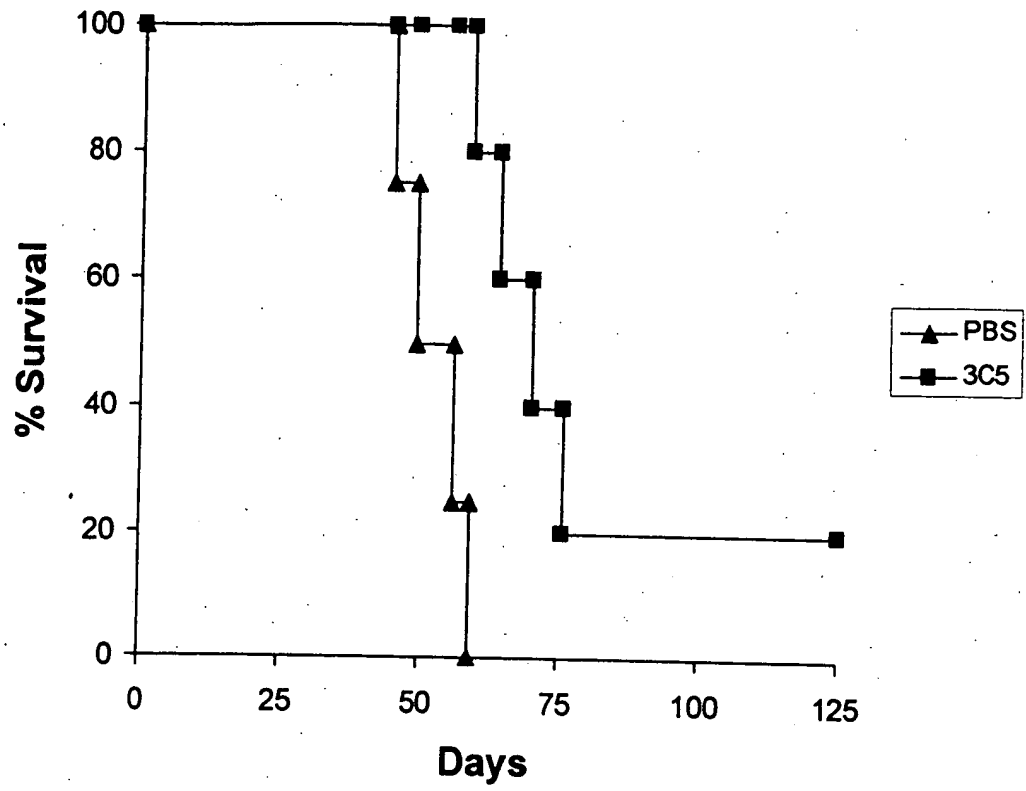


Figure 68

A)



B)

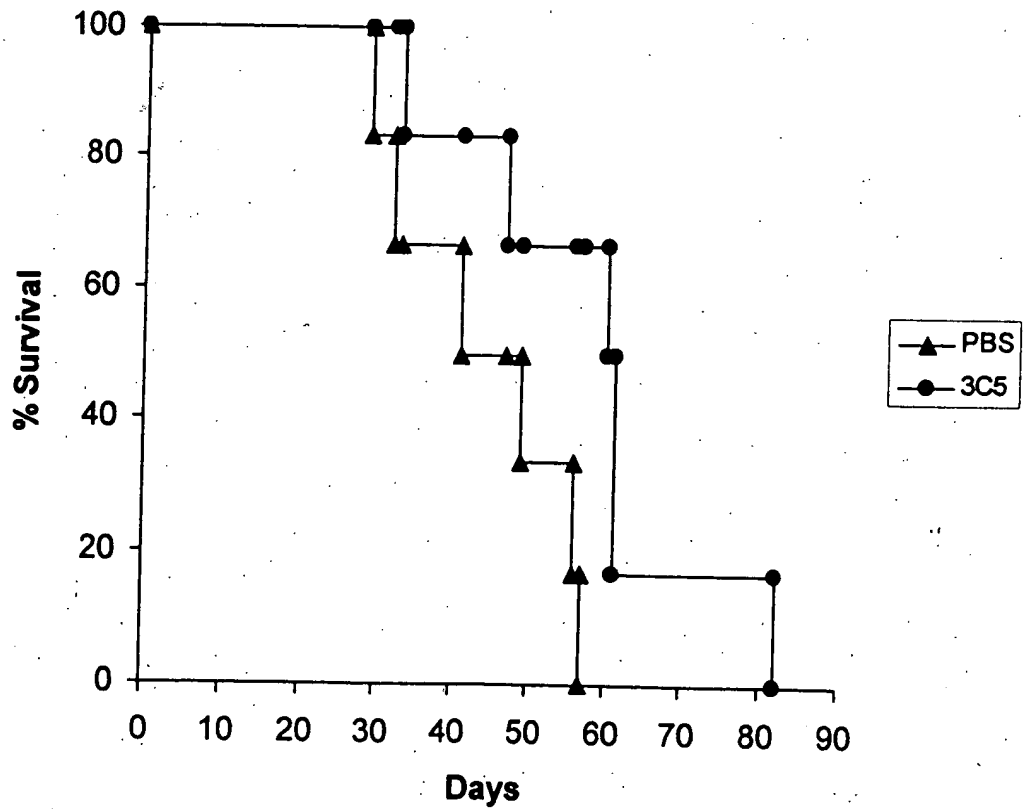


Figure 69

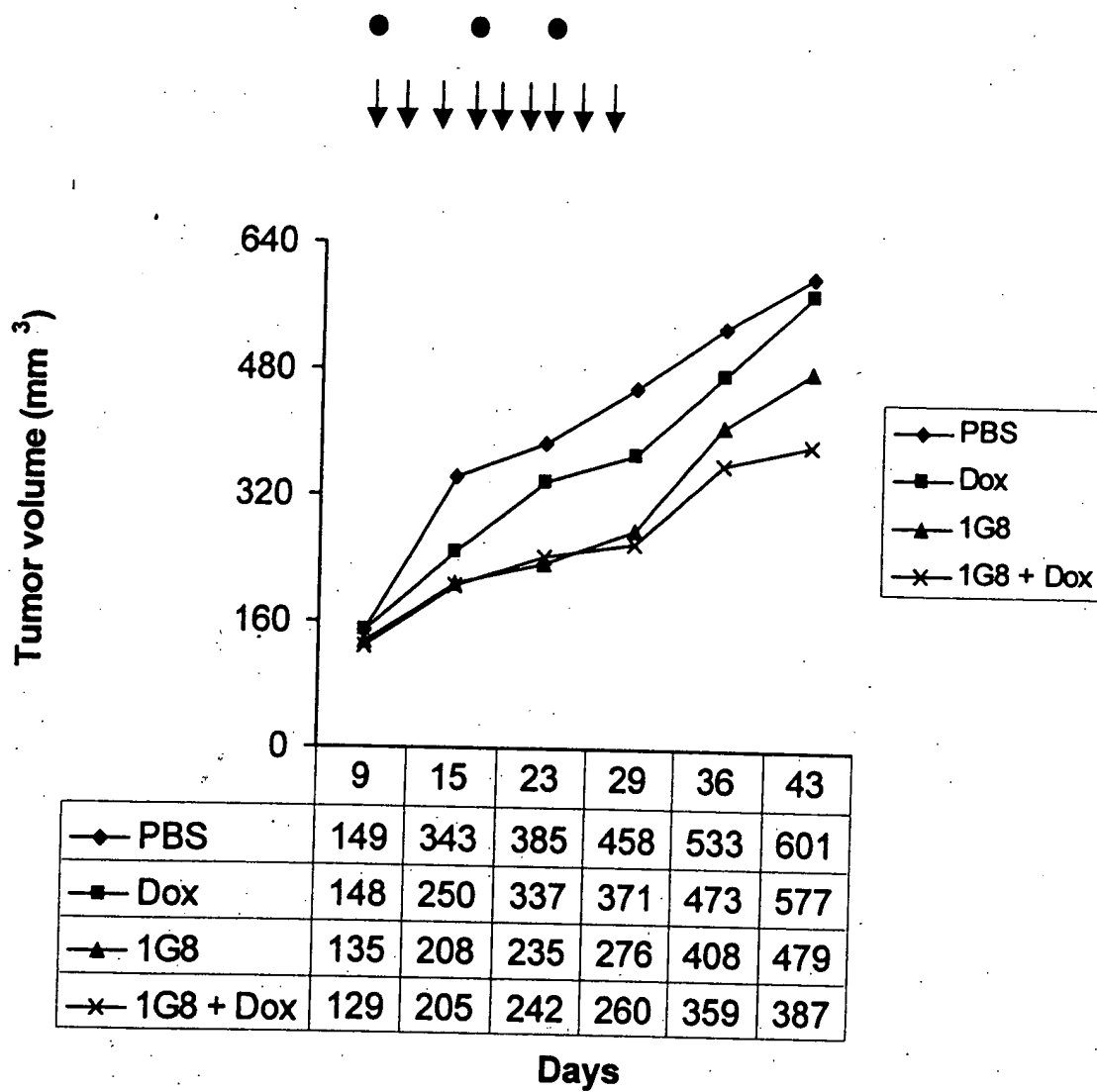
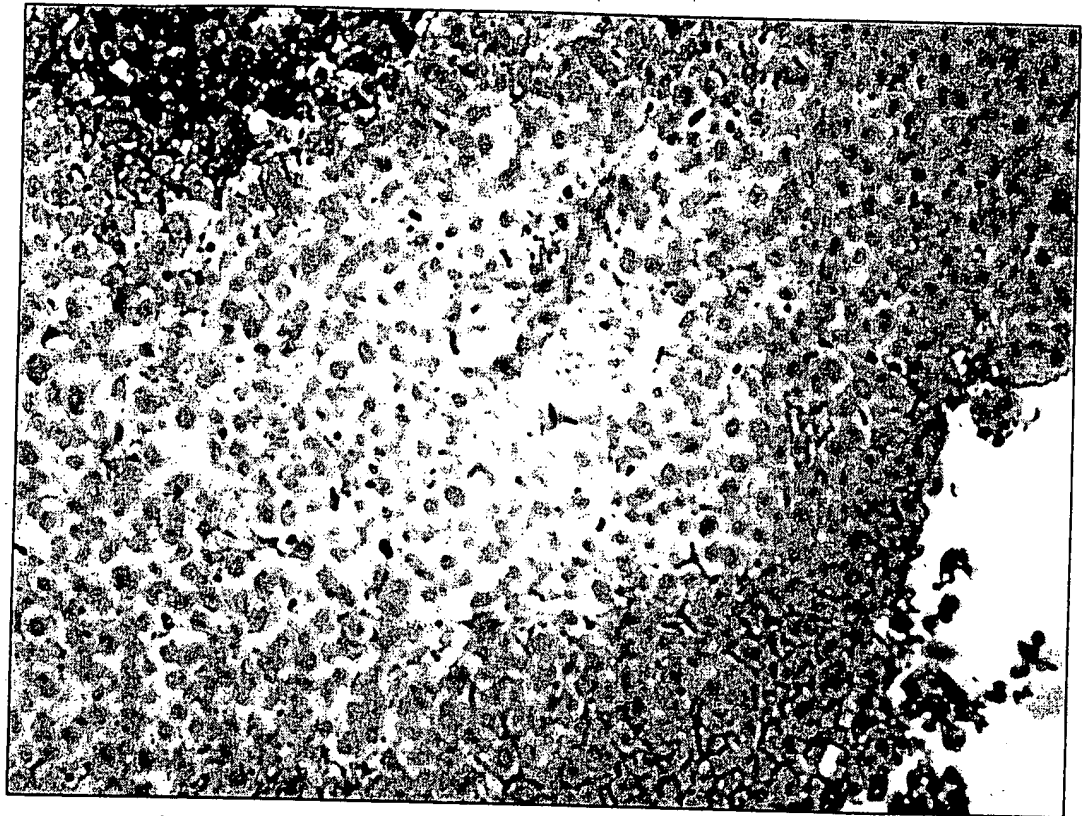


Figure 70

PSCA 3C5 MAb Localizes within LAPC9AD Xenograft Tissue

3C5 Treated



mIgG Treated

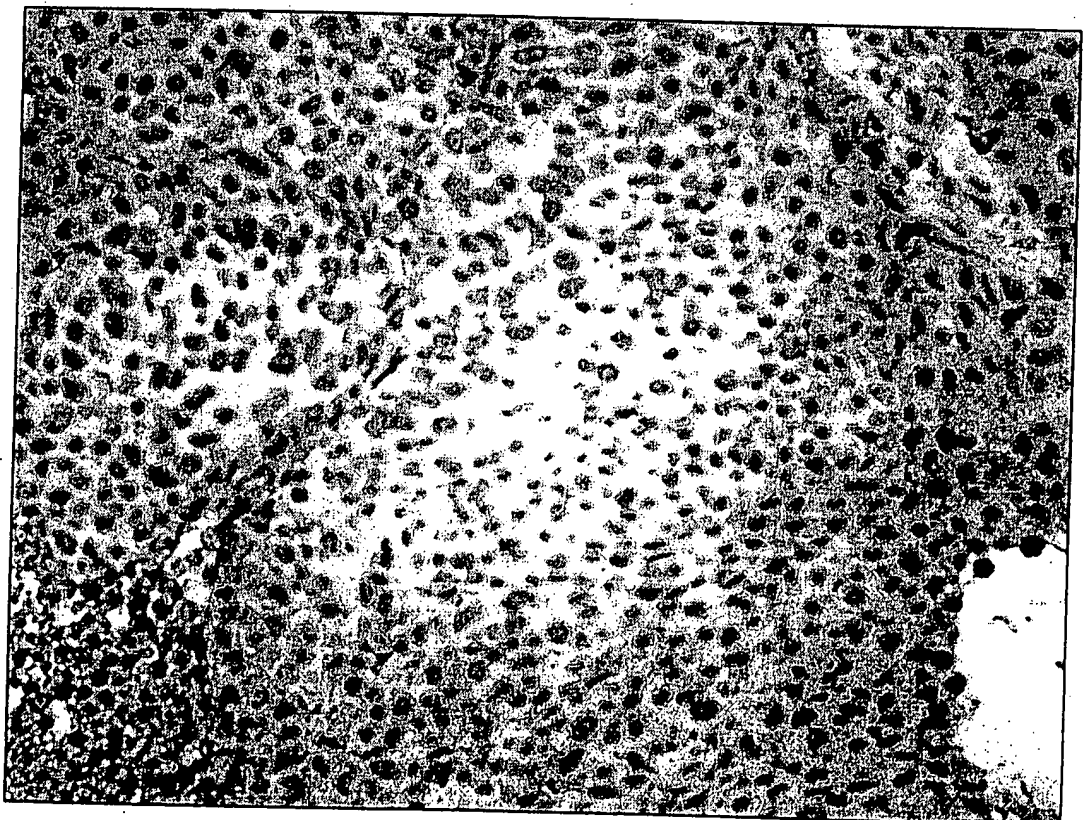
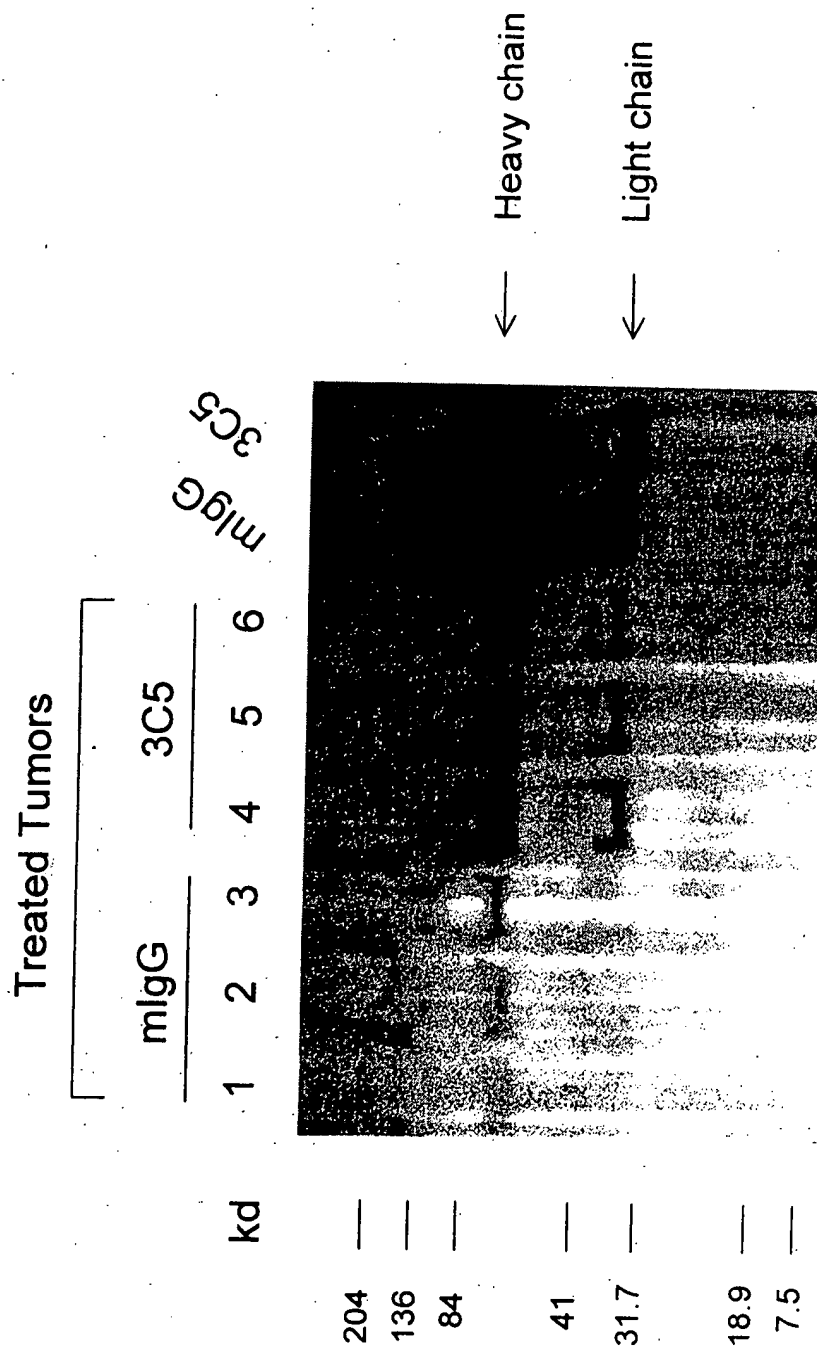


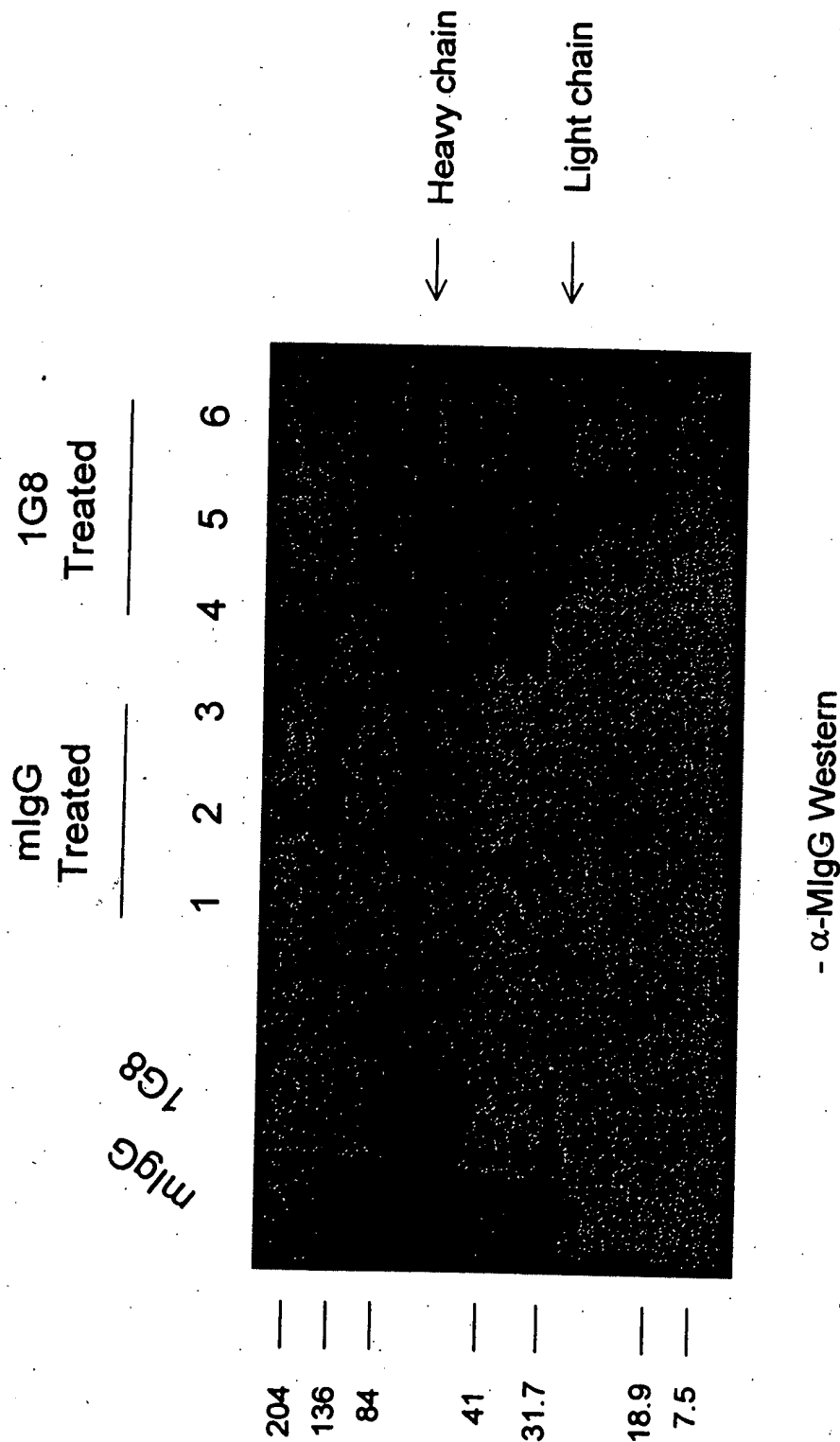
Figure 71

3C5 Anti-PSCA MAb is Localized to Established LAPC-9 Tumors



Western blot developed with α -mlgG/k

SPECIFIC TARGETING OF THE 1G8 ANTI-PSCA MAb TO ESTABLISHED LAPC-9 TUMORS



Method: Mice bearing established LAPC-9 tumors (>100 mm³) were injected with either mlgG or the anti-PSCA MAb 1G8. Tumors were harvested a week later and made into protein lysates for Western analysis.